Gulstonian Lectures
ON
THE LYMPHATIC SYSTEM AND ITS DISEASES.

Delivered at the Royal College of Physicians, March, 1879,

BY JOHN CURNOW, M.D., F.R.C.P.,
PROFESSOR OF ANATOMY IN KING'S COLLEGE, AND ASSISTANT-PHYSICIAN TO KING'S COLLEGE HOSPITAL.

LECTURE III.—PART III.

THE LYMPHATIC SYSTEM OF THE HEAD AND NECK.

THE lymphatic glands of the *head* are not very numerous, and may be thus classed into groups :—

1. The suboccipital (one, or occasionally two), near the insertion of the complexus, receiving the lymphatics from the back of the occiput.

2. The mastoid, four or five in number, receiving the efferent vessels from the above glands.

3. The parotid. These are more numerous, and are placed beneath the parotid fascia. From two to four are tolerably superficial in the substance of the gland, whilst others (three to six) are very deep. The largest is a superficial gland in front of the tragus, whilst many are very small. The lymphatics from the orbits, nose (posteriorly), upper jaw, upper part of pharynx and cranium, through the foramen spinosum, pass into these.

4. The submaxillary. These are arranged under the cervical fascia along the base of the lower jaw, and are from twelve to fifteen in number.

5. The supra-hyoid : one or two in the median line of the neck between the hyoid bone and the chin. I saw these enlarged a few weeks ago in a case in which there was a specific ulcer on the inside of the lower lip in the median line, and two weeks afterwards, coincident with ulcerations on the tonsils and back of the tongue, the submaxillary and cervical glands became affected.

The efferent vessels from all these groups pass into the deep cervical glands.

The lymphatics of the mucous surface of the tongue are very numerous, the networks being principally along the middle of the dorsum and the posterior extremities of its borders. The median network is most developed in the neighbourhood of the circumvallate papillæ. In the fœtus they extend forward to the tip, but in the adult few are found in front of the junction of the anterior and middle thirds. Every papilla is surrounded by a complete ring of lymphatic vessels, and from this ring they run up on the surfaces of the papillæ, and form a sheath superficial to the capillary plexus.

The vessels which emerge from the dorsal plexus are directed both forwards and backwards. The most anterior from the tip pass between the muscular fibres, are joined by deep vessels (intermuscular), and terminate in the supra-hyoid glands; the others pass to a gland near the sides of the thyroid cartilage. The posterior trunks are four in number; two of them pass through the superior constrictor of the pharynx, and two through the thyro-hyoid membrane, to terminate in the deep cervical glands.

The glands of the *neck* form a chain which extends downwards under the sterno-mastoid muscle from the parotid and mastoid groups to the subclavian and mediastinal. Most of them surround the jugular veins, and when enlarged increase towards the pharynx and œsophagus. They are best divided into superficial and deep groups. The superficial are in a line with the external jugular vein. These are from four to six in number beneath the platysma, but superficial to the sterno-mastoid muscle. They receive vessels from the auricle, the cutaneous surface of the head and neck, and part of face, besides the efferent vessels from the mastoid and some of the submaxillary glands. The deep group must be distinguished as superior and inferior. The former are from ten to sixteen in number, and are placed near the bifurcation of the common carotid artery and along the internal jugular vein. They receive efferent vessels from the parotid and some of the submaxillary glands from the tongue, palate, larynx, lower part of the pharynx, the deep muscles of the head and neck, and from within the cranium. The latter, fewer and smaller, are placed in the supra-clavicular fossa, in relation with the scaleni muscles and the brachial plexus of nerves. They receive efferent vessels from the superior glands, both superficial and deep, and the lymphatics from the lower part of the neck. They communicate with the axillary and mediastinal glands, and so may be infected in succession from either direction. Between the superior and inferior groups are two or three small connecting glands, which have been called the deep median group.

1. A very fine network of lymphatics is found in the mucous membrane of the gums and hard palate, and the vessels are large both in the median line and posteriorly. The vessels from the lower gums open into the submaxillary glands; whilst those from the hard palate join the vessels of the soft palate.

2. The soft palate is contained in a sheath of lymphatics, continuous with those of the nasal fossæ and of the hard palate. The network on the lower surface is especially well marked, and that on the uvula is extraordinary. The trunks which emerge may be divided into anterior, median, and posterior. The anterior join with those from the base of the tongue and hard palate, and end in glands around the lower part of the internal carotid; the median group divides into a right and left, which are joined by those from the tonsils, and pass to the glands on a level with the hyoid; whilst the posterior run along the posterior pillars of the pharynx to glands near the bifurcation of the common carotid.

3. The lymphatics of the pharynx begin in a network beneath the mucous membrane, and leave it as four groups: the upper two to converge to the retropharyngeal gland in front of the axis, and the lower two to end in the glands on a level with the upper part of the thyroid cartilage.

4. The lymphatics of the larynx and trachea are especially numerous at the upper aperture, and are spread all along the arytæno-epiglottidean folds. They cover both surfaces of the epiglottis, and are found throughout the larynx and trachea beneath the mucous membrane, but are not nearly so numerous elsewhere as in the position above mentioned. The vessels emerge from the upper part through the thyro-hyoid membrane, and join glands on a level therewith; whilst others pass at various points into the glands near the tubes.

5. Lymphatics of the thyroid body are described by Haller, Hunter, and Mascagni, and, according to the latter authority, arise from the hollow surfaces in its interior, and pass into the cervical glands. Sappey denies their existence.

On the descriptive anatomy of the thoracic duct and right lymphatic trunk I need not dwell. The former begins on the second lumbar vertebra by five radicles; two of these ascend from the lower extremities, pelvic organs, kidneys, and large intestine; two descend from the lower eight intercostal spaces, and the hinder part of the diaphragm. These are the important anastomotic trunks by which the fluid sometimes passes after ligature of the duct, but in a direction opposite to the normal current. They recall the azygos system of veins. The fifth is an anterior vessel, common to the small intestines, liver, stomach, spleen, and pancreas, and is often termed the intestinal trunk. In its course along the spine the duct receives only very few tributaries, and these are quite unimportant, except for purposes of anastomosis. On its emergence from the chest, the vessels of the left lung and left side side of heart, the left half of the thoracic and abdominal walls, from the left side of the head and neck, and from the left upper extremity, enter as three large vessels—inferior, superior, and external respectively, and it terminates at the junction of the left subclavian and internal jugular veins. Three large vessels from the right side of the head and neck, from the right upper extremity, and from a part of the right lung, heart, diaphragm, and convexity of the liver, converge, and form the right lymphatic trunk. This is from a quarter to half an inch long, and ends at the corresponding site on the right side.

Anomalies in the course and termination of the thoracic duct are well known. Wutzer, in Müller's *Archiv* for 1834, has described it as terminating in the vena azygos major by two branches, and Arnold has met with a similar case. It often ends by more branches than one, as Lower pointed out in 1728, and he in fact considered this to be the rule.

Verneuil examined twenty-four cases, and found that in eighteen it was single, in three it had a double, in two a triple termination, but all these emptied into the left subclavian vein. Lacanchie mentions a division into four branches, and Patruban saw two divisions form a ring and enclose the subclavian artery. The lymphatics of the left side of the neck and left upper extremity occasionally enter by a separate trunk, as I have twice seen myself, or as distinct trunks as described by Verneuil. This anatomist has even seen the thoracic duct terminate by six branches, of which two opened into the left subclavian, two into the internal jugular, one into the external jugular, and one into the vertebral vein. A division may take place at a much lower point, and so resemble a frequent arrangement in some of the lower animals. The two branches then run up on the right and left of the aorta, and anastomose frequently. They may reunite, so that the main vessel ends as usual, or one branch may enter on the left side whilst the other joins the right lymphatic duct and enters the right subclavian vein. Such a division may take place at the very origin of the thoracic duct, as mentioned by Teichmann, in which case the trunks subsequently reunited; and by Cruikshank, Haller, and Sömmering, in whose cases they were double throughout, and ended in both subclavian veins. Inversion of the common arrangement has been described by many anatomists, as by Lane, who traced the main vessel to the right side, and the smaller duct to the left. Morrison Watson and Fyffe have seen the thoracic duct terminate in the right subclavian vein, and after a minute search failed to find any trace of a smaller lymphatic trunk on the other side. In these cases there was no transposition of viscera and no important arterial anomaly. Such deviations have more than an anatomical interest, and are of great importance when we have to study cases in which the thoracic duct is compressed or obliterated by disease or is ligatured for purposes of experiment.

The mode in which the lymph passed upwards when the thoracic duct was occluded was traced in one case by M. Andral, fils,[1] and thus described by him:—"In 1821, on opening the body of a phthisical patient, I found the thoracic duct for several inches above the diaphragm filled with a notable quantity of lymph. It suddenly diminished and lost its transparency at a portion corresponding to the bodies of the third, fourth, and fifth dorsal vertebræ, but from the third to its termination in the vein the canal regained its former size, its transparency, and it seemed to be filled with lymph. A stylet, introduced immediately above the diaphragm, penetrated its cavity easily to the level of the fifth vertebra, but here encountered a sort of cul-de-sac, which was impenetrable. In that part of its length, where the canal seemed to have shrunk, it was impossible to discover the slightest cavity, this portion being transformed into a fibrous cord. By careful dissection a large lymphatic vessel was found, arising from the principal duct a little below the point at which it was obliterated, and, passing obliquely upward behind the azygos vein, entered into the proper canal just above the point of obliteration."

Before concluding this series of lectures there are one or two other points of interest to which I would refer. First, in regard to the escape of lymph from ruptured or divided vessels. I doubt very much whether spontaneous rupture of lymphatics ever occurs, unless the vessels are dilated by pre-existent disease.

If accidentally wounded, the lymphatic radicles, networks, and smaller trunks give no sign; lymphorrhagia only results from injury to a vessel of some calibre. Hence wounds of the extremities, such as the hands and feet, are not complicated with excessive escape of lymph; this fluid mixes with the blood from the incised vessels; coagulation takes place and prevents the escape of both fluids, whilst the ordinary processes by which wounds are healed seal both sets of vessels at the same time. If the vessel is larger, and particularly if the divided ends are separated from each other, as is generally the case near joints, and where the limbs join the trunk, a lymph-fistula may result. Such cases are recorded by the older observers, as Hewson and A. Monro Secundus, but a fistula does not necessarily form even when a main trunk is divided. Thus "Monro inflicted a wound in the receptaculum chyli of a pig, which was cured in a very short time, and in the meantime the effusion of lymph was prevented by its coagulation." The thoracic duct has only been implicated once in wounds of the mediastinum, and this example, although cited by Bonnet, and allowed by Van Swieten, is a very doubtful instance. An abscess has opened into it, and it was ruptured in a case in which the patient was run over by a carriage. In all the cases of wounds of normal peripheral lymphatics the fluid which exudes is generally limpid; it may occasionally be yellow, or even pink—that is to say, it is either pure or mixed with the ordinary products of inflammation, or with blood. In no such cases is the fluid white or chyliform.

But in cases in which either certainly or presumably dilatation of the lymph vessels and stasis of lymph have taken place, the fluid is frequently so white as to have been described as chyle, or even as milk. So many examples of this affection have been recorded and presented for observation at various medical societies, that I need not describe them. One of the most interesting and complete was brought before the Clinical Society in 1869 by Dr. Day (Trans., vol. ii., p. 104), and another before the Pathological Society in 1875, by Mr. Sydney Jones.

Two analyses of a fluid exuding from a rupture in the superficial integumentary lymphatic plexus of the left thigh were analysed by Gubler and Quevenne, and gave the following results:—

Water	939·87	934·77
Fibrin	0·56	0·83
Caseous matter, with earthy phosphate and iron	42·75	42·80
Fatty matter	3·82	9·90
Hydroalcoholic extract, containing sugar, and leaving after incineration chloride of sodium, with phosphate and carbonate of soda ...	13·	12·60
	1000·00	1000·00

Now, in the analysis of mixed chyle and lymph from the thoracic duct, Dr. Owen Rees gives the proportion of fatty matter as 9·2 parts per 1000, whilst in the analysis of pure lymph from a donkey, before it reached the thoracic duct there was only a trace of fat; and in a case in which the lymph vessels were diseased Dahnhardt only found 3 parts in 10,000. In chyle, Rees estimated the amount of fat as 36 parts in 1000.

In these cases of lymph-varix the fluid is white, from a large admixture of fatty matter. It is interesting to inquire whence this comes, but to ascertain this it will be necessary to refer to some other examples of milky discharges and collections. In the first place, should the flow through the thoracic duct be impeded, that vessel will dilate unless the anastomoses be free, and it or its receptacle will burst, and a large quantity of chylous fluid be poured out into the thorax or abdomen.

An old case of rupture of the thoracic duct is quoted by Dr. D. Monro in his treatise on Dropsy:—"In the body of a man who died after a large quantity of chylous liquor had been let out of his thorax, Bassius discovered, about the third or fourth dorsal vertebra, an orifice from which the chylous matter flowed as from a fountain." A recent case of rupture of the receptaculum chyli on its anterior surface is most carefully described by Dr. Cayley, in the seventeenth volume of the Transactions of the Pathological Society. The obstruction was caused by a narrowing at the entrance of the duct into the subclavian vein and the formation of a thrombus in this situation. But the rupture may take place in the lacteals before they reach the receptaculum, and true chyle extravasated, as in a case recorded by Quincke, in which the folds of the mesentery had been inflamed, and were so firmly bound together as to obstruct the passage of the chyle through the vessels. In other cases, tumours have prevented the flow through the lacteals into the receptaculum chyli or through the duct. As in these cases pure chyle is poured out, the milkiness of the fluid which has collected or been drawn off is at once explained. Many of the older instances of chylous dropsy were simply cases of empyema and purulent ascites.

But how are we to explain the amount of fat which is found in the urine in the numerous cases of chyluria which have now been recorded? The general explanation of the phenomenon is that there is a leakage from the lacteal vessels or receptaculum chyli into some part of the urinary system, and that the fluid passed is pure chyle or chyle mixed with urine. The discovery of filariæ in the urine in these cases, as well as in the blood, in the suprarenal capsules and kidneys, has

[1] Arch. Gén., Sept. 1824.

led to the idea that these entozoa are actively concerned in causing the leakage. I would point out, however, that they have also been found in cholera stools, and in the blood of patients suffering from rheumatism, intermittent fever, and stricture of the œsophagus (Fayrer). Moreover, as they occur in people free from apparent disease, we must still hesitate to attach an exclusive importance to the part they play in this and allied diseases. It is difficult to understand anatomically how leakage can take place from either the lacteals or the receptaculum chyli into the urinary tract. Regurgitation into the lymphatics of the kidney from the receptaculum chyli is almost impossible; the small number of the renal trunks, the valves, and other routes more open to a retrograde current oppose it, and in no instance of obstruction to the duct has dilatation of the renal lymphatics or chyluria been observed. The anatomical relations of the reservoir of the chyle, the thoracic duct, and the peripheral lacteal system are such that one cannot admit the possibility of any direct communication with the urinary passages. There is considerable space between the commencement of the ureter and the receptaculum, and it is even more remote from the duodenal lacteals, which are nearer to it than any other chyliferous vessels. The hypothesis of leakage from the chyliferous system is quite untenable. I doubt, indeed, if the fluid contain true chyle. In a case narrated by Dr. Wm. Roberts chylous urine and a milky discharge from the abdominal wall were co-existent, and it is impossible for such peripheral discharges to contain chyle. Dr. Roberts does not suggest the theory of chyle-regurgitation. In the abdominal wall, as in the thigh, the distance from the chyliferous tract and the intervention of tiers of glands and numerous valves at once oppose any such explanation. He explains the milkiness of the discharge by supposing that "the structures which produced the fluids were anatomically related to the lacteals and lymphatic tissues, and that in consequence of their hypertrophic development they had acquired the property and function of the cells lining the lacteal ducts and glands." Dr. A. Buchanan's explanation of chyluric cases is that the fatty matter is produced "by a morbid activity of epithelial cells, the function of which has become perverted." Fetzer suggests, in a case of milky discharge from the thighs, that the fat is absorbed by the lymphatics from the contiguous tissue. But no diminution of the adipose tissue, commensurate with the enormous amount of loss, has ever been recorded, and, if it had occurred, must have attracted attention. The clue to the character of these fluids is to be found in the so-called cases of hydrocele with milky contents. A typical example is described by the late Sir Wm. Fergusson in the sixteenth volume of the Pathological Society's Transactions, and several others have been placed on record. That case is thus described: "The fluid exhibited presented all the physical characters of ordinary milk, and was obtained by tapping from the tunica vaginalis. The patient was a German aged forty-two, a healthy-looking man. He had been thrice tapped within the last twelve months, and similar fluid had been withdrawn on each occasion. In all its external characters and in its history the case resembled ordinary hydrocele." The specimen contained 1·53 per cent. of fatty matter, and, except that they were smaller, the oil-globules resembled those found in ordinary milk. In 1875, Dr. Mastin[2] excised a portion of the tunica vaginalis in a similar case, and found a varicose condition of the lymphatics from which the fluid was derived. Varicosities of the lymphatics of the thigh, if ruptured, give exit to a similar liquid. It is therefore more in accordance with known pathological observations to suspect the existence of a lymph-varix in the urinary tract in chyluria. It may exist in the kidney, ureter, or more probably in the trigone of the bladder, where lymph-follicles and networks are more abundant than in other parts of the urinary passages. The common condition for the production of a milky discharge is lymph-stasis, and I would explain the presence of the fat-globules therein by the degeneration of lymph-cells crowded together in these dilatations and of cells produced by proliferation of the lining endothelium of the spaces and vessels. Corpuscles are found in lymph before it passes through a gland, and under certain conditions they multiply very rapidly, and as rapidly undergo molecular (or fatty) disintegration. These molecules, if not absorbed, either form a "milky base," or run together to become oil-globules. That the endothelium lining the lymphatic system is an important factor in producing these fluids is shown by the fact that in all the cases of so-called chylous dropsy, in which there was probably no extravasation of true chyle, the serous membrane was diseased.

Another point of interest is the assistance offered by certain pathological cases in the study of the relative importance of the various forces that are concerned in the circulation of the lymph. This depends, in the first place, on the *vis à tergo*, which is a purely endosmotic afflux; the lymph rises in each rootlet as fluid in a capillary tube. Under influence of the pressure in the bloodvessels fluid constantly exudes through the blood-capillaries into the lymph spaces which abound everywhere, and this is as readily removed by the lymphatic rootlets. But the *vis à tergo* must be considerably diminished as soon as a gland is interposed along the stream. If the gland obstructs the onward passage the lymphatics may dilate and rupture, or local œdema of the connective tissue may take place according to the degree of obstruction. In one of Mr. Moore's cases, in which there was an inguinal cancer, considerable œdema of the foot and genital organs was present, and also an almost complete conversion into fat of glands in the lumbar region, as if their function had been abolished by the isolation of the lower limbs. Œdema from lymphatic obstruction soon becomes solid from the formation of an immature connective tissue (the so-called mucous tissue), and may lead to local hypertrophy or giant growth, connective tissue and fat predominating. Amongst my out-patients at King's College Hospital last summer was a woman, one of whose arms was affected with this form of œdema. At first I thought that there might be some obstruction to the return of blood by the veins, but these were not enlarged, and on the most careful examination of the chest, no tumour or other cause of obstruction could be found. On careful inquiry it appeared that she had suffered a few months previously from an acute inflammation, which I suspect, from the history, was a superficial lymphangitis that subsequently spread to the deeper vessels, and caused their almost complete obliteration. This would sufficiently explain the local œdema, for the lymph could only with difficulty pass back to the main trunk in the neck.

At the receptaculum chyli the *vis à fronte*, or negative pressure caused by the inspiratory vacuum in the thorax, comes into play, and this is aided by the suction power exerted by the rapid movement of the blood-stream in the subclavian veins. Noll found the pressure in the larger lymphatics of the neck in cats and dogs to be equal to that of a column of water, ten to thirty millimetres (from half an inch to an inch and a half) in height, whilst its rapidity is stated by Weiss to be about one-sixth of an inch per second. The influence of retarded venous flow through the heart in obstructing the lymph circulation is clearly shown in several cases, as, for instance, in Virchow's case in the new-born calf, which I quoted in a former lecture. Rokitansky describes an instance of dilated heart with thickening and shortening of the mitral valve, extensive dilatation of lymph channels, stasis of lymph and chyle, and effusion of a milky fluid into the pleural and pericardial cavities. Dr. Grainger Stewart narrates a somewhat similar case in the *Edinburgh Medical Journal* for 1863. At the autopsy extensive valvular disease was found, and the stasis of chyle in the central lacteals and the dilatation of vessels were most marked. No doubt these are extreme examples, but they serve to draw attention to the fact that a certain amount of lymph obstruction is entailed in every case of congestion of the large systemic veins.

Pressure of all kinds, and especially the contraction of muscles adjacent to the lymphatic trunks, must in a series of valved vessels be powerful accessories, and the contractility of the muscular walls of the lymphatics would have a considerable propulsive influence.

The loss of the force exerted by the muscular contractility and the subsequent inefficiency of the valves must be taken into consideration in explaining the condition of the peripheral lymphatics in lymph-varices, and the cavernous tumours which are so well known in connexion with this system. The degeneration of the muscular tissue in the glands will go far to explain many of the stases that occur therein, even when the glands appear to be but little changed. I would also suggest that the destruction of the muscular fibres in the walls of the vessels forming the peripheral lymphatic networks constitutes an important feature in the early history of the acquired forms of elephantiasis Arabum, and an incomplete development has, perhaps, some-

[2] Amer. Med. Weekly, vol. ii. Louisville.

thing to do with the congenital varieties. Subsequent dilatation of lymphatics, connective tissue and fat-hypertrophy are readily explicable as secondary phenomena.

The debate at the Pathological Society on the relations of the diseases of the lymphatic glands is so recent, and the views expressed therein were so diverse, that I will not occupy your time with any opinions thereon. I would, however, suggest that any attempt to make the symptom "leucocythæmia" a pathognomonic sign of any one pathological process, seems to me as unscientific as if we were still to use the terms "jaundice" or "albuminuria" to indicate anything more than their existence. "Excess" of white corpuscles in the blood may vary from a very slight increase to an enormous quantity, but intermediate conditions also occur, so that no hard and fast line as to relative excess can be drawn. This excess has been seen in such varied diseases (some of which, as, for instance, intermittent fever, have only remote affinities with lymphatic diseases) that it is quite premature to attempt to explain its significance. I would also ask observers to examine the blood in such cases much more frequently than is usually done at present, for there are many reasons for supposing that great changes in the ratio of white to red corpuscles take place even at short intervals of time.

CASE OF IDIOPATHIC INFLAMMATION OF THE SPINAL DURA MATER

(PACHYMENINGITIS SPINALIS EXTERNA).

BY W. H. SPENCER, M.A., M.D. CANTAB.,
SENIOR PHYSICIAN TO THE BRISTOL ROYAL INFIRMARY; LECTURER ON MEDICINE AT THE BRISTOL MEDICAL SCHOOL.

INFLAMMATION of the spinal dura mater is generally due to traumatic causes, or to caries of the vertebræ, or to sacral bedsores. It is quite conceivable that it may arise from the extension of disease from any parts connected anatomically with the spinal canal or its contents. A few —very few—cases have been recorded which seemed to assert the spontaneous or idiopathic origin of the disease; I mean, acute inflammation arising spontaneously in, and confined to, the outer surface and layers of the spinal dura mater and the connective tissue surrounding it. Niemeyer, writing less than ten years ago, spoke of it as probably never existing independently. Erb, writing in Ziemssen's Cyclopædia of Medicine (in the last volume, published only a few months ago), speaks very guardedly as to the etiology of the disease; he says, "we are probably justified in claiming the possibility of the spontaneous and primary origin of pachymeningitis externa, especially as there is no solid objection to it." The following case shows, I think, that the disease can be primary and idiopathic; at least it may prove a contribution to the very scanty literature on the whole subject of inflammation of the spinal dura mater.

The subject of this case was a labouring lad, aged fourteen. Never robust, he had not ailed anything particular, and had been able to do his work up to the time of the present attack. The present illness began, about the 3rd July, 1878, with pain in the feet and knees and in the small of the back, the pain in the back frequently shooting down the backs of the legs. He continued at his work for about a week, and then the pain in the back was so severe that he had to desist. Two days later the pain in the back was worse, and he felt hot and feverish. Then for two days he had frequent shiverings and smart diarrhœa; the stools being of a light colour. He was admitted to the Bristol Infirmary on July 13th.

The patient was thin and anæmic; his face wore an expression of suffering; his cheeks were flushed; he complained of severe pain in the lower part of the back, and also in the knees and feet. He lay upon his back, and was afraid to move much on account of the pain. There was great tenderness on pressure all over both lumbar regions, but not on the spine in any part of its length; there was no redness nor swelling of any joints; the surface of the body was covered with copious acid sweat. Temperature 101·8°; pulse rapid and somewhat wiry, but regular; tongue very dry, coated in the centre with creamy white fur, red at the tip and edges. A systolic bruit was heard, loudest at the aortic cartilage; over the lower lobe of the right lung the percussion-resonance was impaired and the breathing was deficient; breathing was rapid and somewhat painful; there was a dry hacking cough. The abdomen was tympanitic and tender to the touch all over; a good deal of gurgling on pressure; no spots. Diarrhœa was profuse, and the stools were very loose and very light in colour; the urine was scanty, with excess of uric acid, but without albumen; there was no paralysis of motion nor defect anywhere in sensibility; the patient had complete control over the sphincters; the intellect was clear and the lad answered questions quite rationally; his one complaint was of his back.

During the two following days the symptoms varied little; the pain in the back and knees continued; the patient had restless nights; diarrhœa and sweating were profuse. Temperature rose on the evening of the 14th to 104·6°, thence it fell and remained below 101° for two or three days; the pulse became softer and more compressible. At this time (three days after admission) the patient could turn over in bed with little difficulty if he turned slowly and cautiously, and I saw him rise from the night-stool and get into bed with comparative ease.

On the morning of the 16th, the fourth day after admission, the patient became delirious and lost control over the sphincters. This condition, however, was not persistent; there was no paralysis of the limbs, and the lad answered questions put to him. The patient was very restless, tossing about in bed and moaning a good deal. The pain in the back was very severe, and had extended higher. Pain in the head was now complained of. The lung condition was unaltered; the systolic bruit was harsher; the tongue was brown; the pulse was small and compressible.

On the 17th the pain had extended to the neck, and the neck was very stiff. The patient could not now move himself in bed at all. There was a peculiar purplish mottling on the chest and abdomen. The temperature rose steadily again from the morning of this day. The diarrhœa continued, but to a less extent.

On the 18th the pulse began to fail, the breathing became more rapid and shallow, and food was refused. The patient got weaker. He was unconscious on the 19th, and died on the morning of the 20th.

The morning and evening temperatures during the progress of the case were as follows:—

July	13th	...	A.M.	—	...	2 P.M.	101·8°
,,	,,	...	,,	—	...	8 P.M.	99·4°
,,	14th	...	,,	101·4°	...	P.M.	104·6°
,,	15th	...	,,	103·8°	...	,,	102·8°
,,	16th	...	,,	101·6°	...	,,	99·8°
,,	17th	...	,,	101°	...	,,	102·2°
,,	18th	...	,,	102°	...	,,	103°
,,	19th	...	,,	103°	...	,,	103·6°
,,	20th	...	,,	103·4°			

The treatment consisted in the administration of ammonia with bark, and the use of opium externally and internally.

Necropsy, twenty-six hours after death. (Reported by Mr. C. Henderson.)—Rigor mortis fairly well-marked. Body considerably emaciated.—Head: Vessels of the dura mater full of dark, fluid blood. Slight cloudiness observed on removing the dura mater, due to some fluid in arachnoid of convexity. Vessels of the pia mater injected with dark blood. No fluid in the subarachnoid space at the base of the brain. The vessels at the base healthy, so far as could be seen with the naked eye. No tubercle could be seen anywhere. At the posterior margin of the foramen magnum, in the left occipital fossa, was a clot of blood, about one inch in diameter, of dark colour, soft, and apparently recent; the clot was easily detached from the arachnoid, which was stained where it was in contact with the clot; at the site of the clot the vessels were much injected, and the bone was sound. The brain-substance was tolerably firm. On section of the brain the puncta cruenta were large and numerous, blood oozing from them. Lining membrane of lateral ventricles stained. The two anterior lobes of the brain adherent by bands of lymph in the median fissure.—Spinal canal: The whole canal was filled, from within two or three inches of the head down to the sacrum, with thick creamy pus, of a light-yellow colour, and containing numerous shreds of lymph. The pus was found to lie outside the dura mater, between it and the periosteum. The pus had found its way out of the canal through the intervertebral foramina,

and surrounded the spinal nerves for some distance. It had also passed out between the laminæ, and infiltrated the connective tissue between the muscular structures on each side of the spine, forming collections of various size, the largest opposite the lumbar vertebræ. These were not abscesses, but infiltrations of pus into the interstices between the muscles. The tissues around these collections of pus were softened, and the spinal nerves were laid bare. The most noteworthy of these collections was one opposite, and and to the right of, the sixth and seventh dorsal vertebræ; the pus had here found its way under the costal pleura and projected into the thorax as a tumour, the size of a large hen's egg, lying close to the spine. The spinal dura mater was pale, and of a white colour in the cervical and upper dorsal regions; lower down it was like wash-leather, and at the lowest point it was very soft, thickened, and at several points had undergone loss of substance. On slitting up the dura mater anteriorly the medulli-spinal veins were found to be enlarged, tortuous, and injected with fluid blood. The spinal cord lay intact in the canal; it was firm, and of natural colour, and presented no abnormality to the naked eye. Nothing abnormal could be detected during a prolonged and minute inspection, in any of the bones forming the spinal column, nor in the ribs connected therewith. The cancellous tissue was of perfectly healthy colour, and its spaces were of natural size. The intervertebral discs were slightly more yellow in colour than is usual, but were otherwise normal.—Thorax: On the left side there were some old adhesions between the pleura and the diaphragm. On the right side a layer of soft recent lymph covered the lower lobe of the lung posteriorly, and upon this layer of lymph was a large extravasation of blood, the clot extending round to anterior surface. This lymph and blood-clot were situated directly over the collection of pus projecting into the thorax as a tumour opposite to the sixth and seventh dorsal vertebræ—referred to above. The lung, with its adherent layers of lymph and clot, was easily removed *en masse*, leaving the tumour covered by the costal pleural membrane. This tumour was incised after the removal of the lung, when its contained pus flowed out into the thorax. The lower lobe of this (the right) lung was in a state of intense, black splenisation; it was quite devoid of air and when incised had the appearance of damson cheese. The pericardial sac was full of thin sanious liquid.—Both ventricles of the heart were filled with soft, dark blood-clot; the endocardium was stained. The aortic valves were thickened and fibrous; the other valves were normal. The liver was soft and rather fatty. The kidneys were congested, but otherwise normal. The spleen was large and congested, but firm. The villi of the small intestines were considerably hypertrophied; some parts of the ileum were injected, but otherwise the intestinal canal was healthy.

Remarks.—The interest of this case centres in the etiology and pathogeny of the disease. Questions of collateral interest arise as to subsidiary lesions and appearances, and as to the symptoms and course of the disease. If we speak of this case as an example of spontaneous or primary inflammation of the spinal dura mater, we mean, in the present state of our knowledge, that there was no trace of any lesion in the vicinity of the spinal meninges, nor in any part anatomically connected with them, which could have provoked, by irritation, inflammation of the spinal dura mater. In this case there was certainly no caries of any vertebra, no disease of any intervertebral cartilage, no bedsore, no inflammation of dorsal muscles or psoas—no cause, in short, which has ever been specified as the possible or probable source by extension of the disease. H. Mueller has, it is true, recorded a case in which he supposed that inflammation in the subpleural connective tissue was the origin of pachymeningitis externa. The presence of a subpleural collection of pus in my case reminds us of Mueller's case. Now, in the first place, Erb disposes of Mueller's explanation as to his case, so that the solitary case that might throw light upon my case is gone. And the evidence in my case is at least quite as strong on the one side—in favour of the primary collection of pus being in the vertebral canal—as it is on the other. Erb thinks, indeed, that the secondary nature of pachymeningitis externa has been over-advocated; he says that it is more natural and probable, *à priori*, to suppose that pus should find its way *out* of the vertebral canal in this direction or in that, than that it should find its way *into* the vertebral canal from adjacent structures. There is only one possible way in which I can conceive the subpleural abscess to have been the starting point of the spinal suppuration, and it is this: If the patient had received a blow in the back, on the right side, and close to the sixth and seventh dorsal vertebræ, inflammation and suppuration might have occurred at this spot; thence inflammation might have extended into the spinal canal, and pleuritis and extravasation of blood—such as were found—might also have occurred at this spot. But the patient was, for several days after his admission to the infirmary, intelligent and rational, and inquiry failed to elicit any history of an injury which must, had it ever occurred, have been impressed on his memory. Besides, the dorsal region was not the starting-point of the symptoms. Wherefore I am constrained to believe that the lumbar dura mater, and the tissue surrounding it—that part which bears traces of the oldest lesion—was the part first and primarily affected in this case. If, then, we ask what set up inflammation at this spot, we may fall back upon one or other of two more or less likely answers to the question. Etiologically, we may summon exposure to cold and damp, or rheumatism, to our aid. Rheumatism is a vague word to use here; its use would be equivalent to a confession of ignorance. There seems to be no good reason why cold or chill, *plus* unusual strain on the lower part of the back during work, should not be an efficient and sufficient initial factor in this case. The history quite bears out the explanation, and this is, indeed, the explanation of the origin of the disease that I have formed in my own mind.

Two other points of interest attract notice. There was almost universal hyperæmia; the liver, lungs, kidneys, spleen, and brain were greatly congested, and in certain places the hyperæmia was so intense that extravasation of blood had occurred. Why the whole lower lobe of the right lung should have been so gorged with blood as to look like one huge infarct, I cannot tell. The pleuritis and extravasation of blood into the pleural cavity are intelligible, in presence of the subpleural abscess in whose immediate vicinity these appearances were found; but the condition of the lobe of the lung must itself have owned internal causes, which, one would think, should have operated on other parts of the lungs as well. As to the general hyperæmia, this may perhaps be referred to vaso-motor paralysis. We need not suppose that the extension upwards of the disease, and consequent functional affection of the cord, impressed the medulla and its contained regulative or co-ordinating vaso-motor cells. We know that the cord itself is a centre for reflex vaso-motor actions, if not for automatic vascular actions. But this is a very wide subject, however interesting it may be in its relations to this case. Our present knowledge forbids anything more than a hint and suggestion in this connexion. The symptoms observed in the case are, as compared with other recorded cases, very definite and characteristic of pachymeningitis uncomplicated (so far, perhaps, as it ever can be) with disease of the other meninges—leptomeningitis,—or with myelitis. The shiverings before admission to the infirmary marked, no doubt, the beginning of suppuration. Pain in the back was the one prominent symptom throughout. The absence of rigidity (until the cervical region was invaded), of paralysis and disturbances of sensibility, are features that will not escape notice.

From the diagnostic point of view the resemblance of the disease to enteric fever is interesting. In the first few days the resemblance of the symptoms to those belonging to enteric fever was very marked. The diarrhœa and the character of the stools were especially noteworthy. I do not find this symptom referred to anywhere in connexion with pachymeningitis. But the post-mortem appearances forbid, I think, any suspicion of typhoid fever in the case. On the whole, then, I think the case must be regarded as one of idiopathic pachymeningitis externa, and the diagnostic significance of the symptoms and course of this disease must be sought rather in the absence of characters known to be associated with inflammation of the other membranes of the cord than in the presence of any characters special to inflammation of its dura mater.

Clifton.

There were 1351 deaths registered in London last week, 11 of them being due to small-pox, 75 to measles, 26 to scarlet fever, 17 to diphtheria, 41 to whooping-cough, 14 to different forms of fever, and 13 to diarrhœa. Chest diseases accounted for 246 deaths, against 283 in the preceding week.

ON BLOOD-CLOTTING IN THE VESSELS.

BY AUGUSTUS J. PEPPER, M.S., F.R.C.S.

Concluded from p. 804.

I NOW come to the second cause of coagulation during life—viz., alteration in the vessels; the coagulation ultimately depending on a deviation from normal nutrition of their structure. Now defective nutrition may be explained in one of three ways:—1st. Those conditions that tend to slow the blood-current, such as (*a*) varicosed and dilated veins; (*b*) atheromatous and calcareous arteries and aneurismal sacs; (c) obstruction from without, as by ligature, or the pressure of a tumour, or inflammatory exudation causing great capillary tension; (*d*) venous reflux into capillary areas, from embolism of the arteries feeding them; (*e*) feeble cardiac action, either from fatty degeneration or acute myocarditis, or a deficient output of energy from want of the usual amount of stimulus—e.g., in a person of active habits suddenly confined to bed by accident. 2nd. (*a*) The influence of inflammatory states, such as occur in subacute and chronic arteritis; (*b*) simple degeneration of the vessel walls. 3rd. The immediate effect of injury—that is, before there is time for inflammatory action to supervene. A case in point was treated in the hospital last year. A child got its arm jammed in a gate. The radial pulse could not be felt very shortly afterwards, and gangrene appeared inevitable. The limb was amputated at the shoulder-joint, and, on examination, besides subcutaneous and subfascial extravasation, the inner and middle coats of the brachial artery were found lacerated in two places, the outer coat bulging opposite the lesions; a clot obstructing the artery existed in both situations—but for this, the lumen of the vessel was free. I ought not to omit that the state of nutrition of the tissues to be nourished must necessarily affect the quality of the blood, and so indirectly may lead to its clotting.

The microscopical changes that are found in thrombosis have been studded chiefly in the veins, where coagulation is much more common than in the arteries; and for a long time it went without challenge that phlebitis was primary, and was the cause of the thrombosis that was supposed to follow it. At the present time the general verdict is to reverse this order of things, most pathologists agreeing that the inflammation of the vein is, as a rule, secondary; whilst some, whose opinion we are bound to respect, practically ignore the very existence of a true inflammation of the coats of the veins, and look upon it as a case of periphlebitis in the areolar tissue outside, this sometimes, though comparatively rarely, going on to abscess.

In former times the redness of the intima of the veins seen at autopsies, and the pain and redness along their course present during life, were looked upon as the proofs that the essence of the disease was a phlebitis. The first criterion falls to the ground, since the discoloration of the inner coat is due to staining by the hæmoglobin of the clot, and not to inflammatory hyperæmia. The second is not so definitely settled, and I, for one, am not prepared to say that phlebitis may not occasionally be the cause of thrombosis. That thrombosis is usually the first to occur I freely admit; that it is always so I as stoutly deny. On the table before you is a section made through an artery and some veins of the forearm; the artery is perfectly healthy, but the veins are occupied by clots, and you will see that their walls are infiltrated with the anatomical evidences of pus—that is to say, cells which cannot be told from pus-corpuscles; it is taken from the forenamed case of compound fracture of the jaw in a child, that resulted in septicæmia. Now at the time there was a furuncle on the forearm, and the inflammation spread from this, and to all appearance attacked the walls of the vein in its course, and thus caused the thrombosis, for the veins about the jaw and neck were not obstructed. Another fact favouring this view is, that the clot appears quite recent, the outline of the red corpuscles being perfectly distinct—a condition not likely to be found in a case of blood-poisoning where the coagulation had lasted longer than a very short period.

In one of the cases of arterio-venous thrombosis, just now described, there was evidence that the artery was the first to be blocked, and at the necropsy patches of subacute arteritis were found in all the large arteries. The patient seemed in perfect health until the coagulation set in, and there was no clinical evidence of visceral disease after admission to hospital. This, again, goes to show that inflammation of the coats of the bloodvessels may be the cause, and not the consequence, in some cases of thrombosis; and here I may digress to offer an explanation of the fact that diffuse thrombosis of an artery is more frequently attended by that of the companion vein, than *vice versâ*. When a vein is plugged, the nutrition of the walls of the contiguous artery is not necessarily interfered with, nor is it usually so; but when the circulation in the artery is stopped, the vasa-vasorum that supply the walls of the veins are also necessarily obstructed, and so a starvation of that part of the vein ensues, and this results in a loss of vitality and consequent coagulation within. At the same time I cannot but think that the inflammatory condition outside the artery thrombosed (for it is a matter of observation that the latter frequently have to be dissected from out of a bed of exudation), must have some share in effecting the clotting in the neighbouring vein; besides, it is certain that something more than a simple failure in nutrition is at work, else how comes it that coagulation occurs in only a small minority of cases of diseased arteries and veins—say, in primary calcification of the middle coat of the small and medium-sized arteries, or in atheroma of the larger ones? It seems probable that an acute interruption in the nutrition of the vessel, especially if it be of an inflammatory nature, is more likely to cause thrombosis than the fact of simple failure from slow decay.

The last part of my subject consists of a discussion of the fate of the clot. Assuming that coagulation has taken place, a wide field presents itself for consideration. We have to inquire what changes may the clot undergo? What are the clinical and pathological events that ensue?

All are agreed that absorption or disintegration is the course most commonly taken, though it is possible—nay, even probable—that suppuration or organisation may take place. The microscopical examination is of essential service here, since it greatly elucidates the real nature of affairs, and has fairly upset the views of the older pathologists.

That absorption is of very frequent occurrence we have abundant proof, for is it not frequently observed in the living subject? Every surgeon knows that the simple operation of compression as a cure for varicose veins often results in failure even after apparent success, and I imagine that if many cases that are discharged from hospital as cured were only followed up, we should hesitate more than we do before we decided on operative measures, especially as they involve a decided amount of risk to the patient. I place before you the main vessels of the lower extremity where thrombosis spread from the popliteal to the common iliac artery; but for a staining of the inner coat of the femoral and an attenuated clot in its interior, you would not know that it had previously been completely blocked, yet this fact was recognised during life both before and at the time of amputation of the thigh in its lower third. Nor is it necessary that the clot should first undergo a general softening, for on examination of what remained of it in this case, I found that it consisted of distinct filmy threads of fibrin, in the meshes of which white corpuscles were quite distinct. It is noteworthy how quickly the red corpuscles disintegrate. It must not be supposed that complete absorption is requisite to allow the circulation through the obstructed vessel to be re-established. Quite recently I demonstrated in the post-mortem room that a current may pass either through the centre of the clot or between it and the wall of the vessel, and this I believe may take place without absolute stoppage ever occurring.

Formerly, when a bloodvessel was opened and a semifluid material of a reddish-brown or yellow colour was found, it was at once believed that suppuration had occurred, the conclusion being solely based on the naked-eye appearances. This material was looked upon as a mixture of pus and blood. Goodsir, to whom we owe so much, was one of the first to point out that very often not a single pus-corpuscle could be found, and frequently nothing but fatty and granular débris. From an insufficient number of observations he was led into the opposite extreme—viz., that blood-clots never suppurated—an opinion for a long time barely questioned, and held by a few even at the present day. It seemed as though our knowledge on this point had reached finality, but, as in political so in pathological history, great achievements are too apt to check further progress. It has

been shown over and over again that a thrombus may be infiltrated with what cannot be distinguished from pus-cells. Complete organisation of the clot I have not observed, but since it is vouched for by the best authorities I cannot doubt its occurrence. Some assert that the leucocytes take a prominent part in the process, and that bloodvessels are found which communicate with the main stream, and also with the vasa-vasorum of the vessel. More recently Baumgarten has shown that organisation proceeds from the intima, and encroaches on the clot within; and if this be correct it is of especial value, since it supports what I have already stated, that inflammatory exudation does take place into the coats of the vessels, for it is difficult to see without it the *raison d'être* of organisation occurring at all.

From a knowledge of the fact that softening of the clot not rarely takes place, we have a valuable indication of the treatment to be adopted in all cases of thrombosis, arterial or venous. The patient's life or limb may be sacrificed by inadvertent movement on his own part, or manipulation on that of the surgeon, for if a portion of the clot be set free in the circulation, whether it be by simple central or peripheral disintegration, or by mechanical means such as muscular action, or the impact of the blood-stream from a near branch, embolism supervenes, with its diversified results. It is not my purpose to enter into a detailed account of its pathology, but I may state briefly that the consequences will vary—firstly, as to the size of the embolus; secondly, as to its arterial or venous nature; and, thirdly, as to its physico-chemical or vital properties. It may be large enough to cause death in a few seconds by plugging of the pulmonary artery, causing symptoms of terrible dyspnœa and tumultuous action of the heart, with weak or imperceptible pulse, or the fatal end may be postponed till secondary thrombosis on the embolus ends the scene. Or, again, the symptoms may be less severe on account of the breaking up of the embolus at the points of bifurcation of the branches of the pulmonary artery, and thus, rocket-like, burst into an embolic shower. Then, if the clot be non-infective, simple hæmorrhagic infarctions will be produced, which, if small, may disappear, leaving no traces behind; or, if larger, may lead to softening or caseation, according to the freedom of the collateral circulation, and, finally, end in gradual absorption with loss of tissue, as proved by foci of cicatricial tissue. If the thrombosis be arterial, and the embolus of large size, the latter may cause gangrene of the part, calling, in the case of a limb, for amputation, or entailing in that of a cerebral artery acute softening of the brain. If the embolus be infective (and this may certainly be the case without the existence of a wound, as you saw in the child with acute necrosis) rapid softening of the infarction must ensue, with the production of so-called circumscribed metastatic abscesses. Nor must the patient's constitutional condition or state of nutrition of his tissues be overlooked. In Dr. Broadbent's ward is a case of phthisis following abscess of the lung, which latter was started by a clot detached from a thrombosed vein of the leg. Thus the effects of embolism may vary,—they may be so slight as almost to escape notice, or so severe as to lead to sudden death.

TREATMENT OF ULCERS OF THE LEG BY PURE RUBBER BANDAGES.

BY H. A. MARTIN, M.D.

MY attention has been called to a communication from Mr. J. Fletcher Home, appearing in a medical periodical dated April 5th, in regard to results of the treatment of twelve cases, "chosen to include varieties of the more common forms of ulcer of the leg," by the use of bandages of "pure rubber," as practised by myself for nearly twenty-five years, with *invariable* and *prompt* success, and presented to the notice of the English profession in a lengthy paper in the issue of the same journal for October 26th, 1878. Mr. Home kept his patients in bed, as, in his opinion, "the best position for improvement." I give his own statement of results:—"After the application of the bandage each case soon presents a wonderful change. The indurated edges and unhealthy granulations rapidly break down; the gnawing pain, often complained of, is much relieved; the presence of the bandage makes the skin pink and shiny, and filled with a rash like scarlatina; healthy granulations spring up, and the wound in a short time is completely full. But here, in eight cases, followed disappointment—they did not heal. In the four successful cases, the earliest cured wore the bandage forty-two days." Mr. Home states that "the treatment by solid elastic bandages is not a novelty, for its principle of action—uniform pressure—is old." And he concludes by saying that he "shall be glad if this (his communication) elicits the opinion of some reader as to the cause of the failure to produce healing in 75 per cent. (66⅔ per cent.) of my (his) cases."

Without extending unduly this article, I will, as briefly as may be, say that during the employment of bandages of pure rubber alone for the very long period above-mentioned, in an aggregate of over 700 cases of ulcer of every variety and degree, I have never observed such an arrest of the reparative processes as Mr. Home, as I doubt not truly, narrates. Before I ascertained that the bandage of "pure rubber" alone, without any other application whatever, sufficed for the best possible treatment of ulcers of the leg, I, as stated in most if not all my writings on the subject, employed various salves and lotions in connexion with the bandage. No such application is now recommended by me as conducive to the perfection or rapidity of cure, and some of these applications, one particularly—viz., carbolic acid in various degrees of dilution—hindered, greatly hindered, the process of cicatrisation, inducing precisely the same phenomena witnessed by Mr. Home—viz., an arrest of repair at that point where cicatrisation should commence, and, as it always does when a proper bandage *alone* is employed, proceed to a complete abolition of the solution of continuity, with a perfection, rapidity, and solidity which I never saw even distantly approached when other methods were adopted and applied, however carefully and well.

I have examined a bandage sent me on January 7th, 1879. It emitted, on opening the package, a *very* strong odour of carbolic acid, which, when it was handled and unwound, became extremely and oppressively offensive, and on exhibiting it to two very experienced manufacturers of rubber, I was informed that carbolic acid is largely used in the English manufacture of rubber, and was, very evidently, an ingredient of the sample under inspection. I have no hesitation whatever, then, in asserting that the great disappointment experienced by Mr. Home was due to the presence of carbolic acid in the bandages he employed, and, probably, in some degree, to the fact that naphtha was used in the dissolving process which entered into their manufacture. I make this assertion with the more confidence as I have received many letters from England descriptive of like results and disappointments, and always from the use of English-made bandages—results and disappointments which I have never known when properly made bandages alone have been employed, but precisely such as I have observed when lotions of carbolised solutions have been applied under the bandage. I have examined four other samples of English bandage, and all have emitted, in varying degrees, an odour of carbolic acid and naphtha, but neither to such a degree as noted in the first specimen referred to. That four of Mr. Home's patients did better than the remainder was due either to their skin being less sensitive to the noxious application, or, more probably, to its being present in less amount in the bandages used in their cases. It is, however, to be observed that in even these comparatively successful cases complete cicatrisation was postponed far beyond the time required for the cure of such cases by my method.[1]

The bandages which I use and recommend are of what is technically known in this country as "pure rubber"—i. e., the very best old "seasoned" Para india-rubber, *intimately* combined with the extreme minimum of sulphur absolutely necessary, with a proper degree of heat to accomplish the perfect "vulcanisation" or "curing" of the gum. These ingredients must not be combined by solution of the rubber in naphtha or any other solvent, but by a process in which the rubber and sulphur are *thoroughly* combined without

[1] Very striking illustrations of rapidity and completeness of results under treatment by the pure rubber bandage may be found in the leading paper in the Archives of Dermatology for July, 1878, by L. D. Bulkley, M.D. (New York: G. P. Putnam and Sons), "On the Use of the Solid Rubber Bandage in the Treatment of Eczema and Ulcers of the Leg," pp. 18. In this paper a detailed narration is given of the very rapid and perfect cure of twenty-seven cases, all of them of exceptional severity, and proving incapable of much relief from previous persistent and very prolonged treatment. I think that the paper has been published in pamphlet form, and is to be obtained in London.—H. A. M.

any other solvent or substance whatever Bandages containing a particle of any material besides these two are *not* "Martin's bandages," and I disclaim, utterly and decidedly, all responsibility for effect, or want of effect, observed in their use. In every paper that I have written on the use of pure rubber bandage, I have most explicitly stated the composition of the bandages which I recommend, and have so long and with such extraordinary success employed. I have also stated my perfect willingness to afford information to inquiring correspondents, and expressed the hope that "manufacturers may produce the bandages at the lowest paying price, but that they will not do this at any sacrifice of labour in making or of excellence of material." My experience here in America convinced me that the desire among dealers to obtain bandages which they could sell at a very low price, and still with large pecuniary profit, led to the manufacture of an article which, however attractive *in appearance*, was not fit to be used, and which proved utterly deficient in the very important quality of durability. It was this knowledge that induced me to write the communication from which the quotation is made. Soon after it was written, I began to receive by every steamer letters from England complaining of the inferior quality of the English-made bandages, the failure to fully obtain the effects I had claimed in my first paper, and which the writers obtained after they had procured bandages which had been inspected and approved by myself. Some of these writers spoke of absolutely injurious effects induced by the use of the English-made bandages—as, for instance, the severe and complete vesication of the whole leg by a few hours' application of one of them. A few of these letters contained little pieces of the bandages complained of, which were certainly very bad indeed; and two or three of the writers strongly urged me, in justice to myself and for the protection of British practitioners, to write on the subject to one of the leading London medical journals. I was very reluctant to do this. I hoped that the worthless and injurious bandages complained of might be exceptional, and that practitioners would soon learn to avoid them. At last, however, I became convinced that *all* the rubber bandages manufactured at that time in England were objectionable; that they were so because manufacturers did not appreciate the absolute necessity that they should be made in a certain way, carefully excluding ingredients in general use in the English rubber manufacture; and because also, notwithstanding the offer I had made, they had not thought it worth while to apply to me for instruction or direction; and that it was a duty, no longer to be shirked, to make these facts known. I accordingly, in the latter part of last December, wrote a "lengthy communication" to the journal in which Mr. Home's paper appeared, on the fact of the inferiority of the English-made bandages and the reasons for that inferiority, and informing English practitioners that, in pure self-defence, and quite contrary to my intention at the time my first paper was published (October 26th, 1878), I had been driven into the manufacture of pure rubber bandages; and also affording information where, in London, such bandages, made for and fully inspected by myself, and, as a guarantee of this, stamped with a *fac simile* of my signature, could be obtained. This paper was *not* published, its receipt was not even acknowledged in the usual way, nor was any notice whatever taken of it for over three months after its date, over two months after its receipt by the editor. Shortly after writing this lengthy communication, I received specimens of whole bandages, an examination of which so fully and authentically confirmed all, and more than all, that I had written, that I wrote a second letter on the subject to the editor, which, however, noticing that the receipt of my first epistle was not acknowledged, I refrained from sending. On the 15th March, a short editorial note appeared in the aforesaid journal, in which a most imperfect and brief allusion was made to my paper which had been in the editor's hands for over two months, concluding with these words: "To speak quite candidly, we would say that in all the respects of which Dr. Martin speaks—smoothness, elasticity, substance, excellence of material and manufacture—they" (the English-made bandages) "are *superior* to those which are imported with his signature." I immediately wrote to the editor a full statement of what I knew about English-made bandages, accompanied by eleven samples, an examination of which could not fail to convince him that he had hastily reached and expressed convictions which were unjust and, however unwittingly, untrue, and calculated to do not only a great wrong to me and the method I had originated and commended, but also to the English profession, which would undoubtedly be led by such assurances to a confidence only to be rewarded by disappointment or very partial success, as in Mr. Home's case. I asked the editor to calmly and carefully, as the importance of the subject demanded, examine and compare the data I furnished him, and in mere justice and common fairness, as some slight reparation to me, publish the *whole* of my communication, however "lengthy," without abridgment. As I knew that he *might* not accede to this request, however just and moderate, I added a full statement of the case, together with the letter itself, to a very large edition of that paper which was presented to the American Medical Association in June, 1877, in which I first publicly announced my method of treatment by the pure rubber bandage. This pamphlet is now ready, and will leave here to-morrow, and probably reach London as soon as this communication, and, without doubt, be on sale before this paper can possibly be published or acknowledged in print. To that pamphlet I refer for full information as to the method of treatment I recommend, and the fuller details and information touching the why and the wherefore of the wide difference of effect following the use of rubber bandages which are what they ought to be, and those which are the reverse.

Boston, U.S.

CASE OF

COMPLETE TRANSPOSITION OF THORACIC AND ABDOMINAL VISCERA.

BY WM. CURRAN,
SURGEON-MAJOR A.M.D.

THE publication in a late number of THE LANCET of a case of transposition of viscera has induced me to submit an account of a similar case that occurred in the practice of Surgeon (now Surgeon-Major) A. Skeen, M.B., Bengal Army, who was at the time—August, 1873—acting civil sugeon of Peshawur, and to whose courtesy I am indebted for the use of it. Nothing of the kind was suspected during life, but the appearances were so striking and obvious on section as to startle the native Mehter, or scarifier, who prepared the remains for his inspection, and yet were they less pronounced than some other instances of like import that have been published. The last-named functionary was the first to inform Dr. Skeen that, to translate his own words, "everything is topsy-turvy, upside-down, sir, in this man's body." The circumstances under which this discovery was made were as follows (and I purposely condense the report as much as possible to save space):—

A native, named Madho, who died suddenly while in the act of vomiting, had been admitted to the local dispensary the previous day—August 17th, 1873—for what the native doctor regarded and treated as a colic. The patient stated that he had been taken ill the day before, after partaking of a meal of Makhi- (Indian corn) bread,[1] and butter-milk, and that there had been much abdominal pain and vomiting ever since. The vomited matter was slightly feculent, notwithstanding that the use of an enema was followed by more than one discharge of scybala, and that he felt otherwise relieved by the treatment employed. But the relief was only temporary: he was cold and almost pulseless, but quite free from other uneasiness, when seen that evening by Dr. Skeen; and he died, collapsed, about 11 the same night.

[1] *Apropos* of the occasionally poisonous properties of this and other Indian cereals, it is related of the late Colonel Tod, in the Memoir of the Author that is prefixed to his "Travels in Western India" (p. xxxviii.), that he suffered from a feeling of expansion of the head, tightness and swelling of the tongue, and constriction of the throat, on partaking of two mouthfuls of a cake of this material. And Dr. Irvine mentions, in the "General and Medical Topography of Ajmere" (pp. 88-9), that "the whole inhabitants" of certain villages in that country "become periodically maniacal" after consuming two small and inferior sorts of rice that are called Kootkie and Koodhoo. "Death," he adds, "occasionally follows the use" of them; and we know that similar results are produced by cockspurred wheat and rye nearer home. Dr. Chevers has also, I think, alluded to this contingency in his well-known "Manual of Jurisprudence for India"; and Dr. Irvine has traced numerous cases of paralysis and paraplegia in the north-west to the injurious effects of Kessaree Dal, *alias* Lathyrus sativus, in the "Indian Annals of Medical Science" (Nos. xii., xiii., xiv., and xxiii.)

The post-mortem appearances were as follows:—The brain-substance was more than usually congested, but otherwise healthy. On raising the anterior wall of the thorax the heart was found to be much higher in the chest than was natural; its base was found lying on a level with the second rib of the right side and the right half, taken perpendicularly, of the sternum, and consequently encroaching on the right lung. This latter had much the appearance and formation of the left lung, and the descending aorta pursued its course down the *right* side of the dorsal vertebræ, to the extent usual in ordinary cases, on the opposite one. The heart itself, which only weighed eight ounces, was structurally healthy; but the right ventricle was all but filled with a fibrinous, entirely decolorised clot, which also extended into the auricle, and Dr. Skeen attributed the suddenness of this man's death to the obstructive agency of this clot. On opening the abdomen, the liver and spleen were found to have changed places, the former lying on the left side, the latter on the right. The omentum was greatly congested; so also were the small intestines; but there was no appearance of enteritis in them, or of effusion into the cavity of the peritoneum, and they were distended with air or partially filled with fluid matter. The stomach, also full of liquid, was found lying with its pyloric end directed to the left side, and the small intestines were followed from this to their termination, in the usual way, in the rectum. The latter, however, lay on the right side of the sacrum, instead of, as is usual, on the left; and "the gut was occluded above the ileo-cæcal valve by a not very extensive intussusception." The mucous membrane of both bowels exhibited several congested spots; and, "except that the left lobe of the liver was of the usual size and but faintly marked out, whereas one might, from the general transposition of the parts, look for a small right lobe and a large left one," there was nothing else abnormal in either.

I published an illustrated case of a peculiar congenital displacement of the stomach into the chest in THE LANCET for Dec. 29th, 1869, which led to convulsions and death from extravasation of blood on the brain. No vomiting could be ever induced in this case, but its subject was always known to be puny and delicate, and the viscus itself "was completely displaced upwards through an opening in the diaphragm—that bore no evidence of any recent rent, rupture, or laceration,—and occupied a position in front of the left lung, which latter it had so compressed against the spine as to reduce its weight to six ounces, while the right weighed twenty-two ounces and a half." The heart was also displaced downwards and to the right. The left kidney occupied the place usually assigned to the spleen, which was itself found lying within the cavity of the thorax. Several coils of intestine were found in the same locality. Some of these were doubtless displaced through the straining that preceded death; while others were, it may be, dragged up by the pylorus, which was closely jammed under the left clavicle; and, in either case, the position of the stomach, "encased as it was in a comparatively immovable cavity, and beyond the reach of abdominal or diaphragmatic agency," will readily account for its insusceptibility to emetics during life, if it does not help to shed some light on the physiology of vomiting generally.

The collapse and sudden, but withal painless, sinking that ushered in death in this case has since enabled me to diagnose, with some confidence, cases in which there was a traumatic rupture of the bowel, or in which an ulcer of the stomach had terminated in perforation; and the nervous paralysis or default that underlies these several conditions is, I believe, substantially the same in all. However that may be, I and others who saw this poor lad in the dead-house at Pembroke Dock, South Wales, were very hard on the practitioner (a civilian, I believe) who passed him into the service, for overlooking so obvious a complication. Had I known as much of recruiting then as I do now—I have examined no less than 500 recruits since I came here towards the end of March last—I would have been more sparing of my censure, and it is a question with me if this kind of displacement or transposition affects injuriously the health or viability of its owner. Anyhow, the subject deserves further investigation, both from a recruiting and an insurance as well as from a physical or teratological point of view; and I may be here permitted to quote, in connexion with it, the case of "a most active," and at the same time apparently "very eminent," Dublin specialist, whose heart is (according to a writer in THE LANCET of Jan. 21st, 1863), "undoubtedly and congenitally placed in the right thoracic region." The gentleman referred to was "fully persuaded himself," the letter adds, "that his liver occupies the left hypochondrium," and I am not, I trust, singular in expressing a hope that he still continues to "enjoy the excellent health" with which he was credited at the time indicated above by his admiring biographer "F.R.C.S.I."

Station Hospital, Warrington.

CASE OF MALIGNANT REMITTENT FEVER.

By D. L. MACKENZIE, L.R.C.P. &c.,
FORMERLY HOUSE-PHYSICIAN AND HOUSE-SURGEON TO THE ROYAL INFIRMARY, EDINBURGH.

THE following case may be interesting in view of the late epidemic of yellow fever on the banks of the Mississippi, and its present prevalence at the French settlements of Dacca and Goree on this coast. It is a typical case of the severest form of malarious fever, of rare occurrence, and although very similar to yellow fever, can, I think, be readily distinguished from it. It is interesting, also, on account of the proximity of yellow fever to these parts, and because an epidemic of this disease usually appears on the West Coast of Africa every sixth or seventh year, as the epidemics of 1860, 1866, and 1873 testify, when fully one-half of the European residents succumbed to its ravages. In 1872 the epidemic, which in the following year visited Calabar, Bonny, and the other large rivers in this part of the coast, commenced in Senegambia and Sierre Leone, and it is feared that ere long the same track may be taken by the deadly scourge. So far, the settlements in this neighbourhood have, with the exception of Lagos, been comparatively healthy; but in the latter place, during the months of April, May, June, and July, nearly one-third of its entire European population died from fever and dysentery alone.

Thomas C——, aged twenty-seven, a Scotchman by birth, of delicate constitution, had, after considerable exposure to fatigue and malarious influences, complained of fever of an intermittent type for five days, accompanied by constipation of bowels and sleeplessness, which, on Oct. 9th, culminated in a rigor of more than usual severity. He had frequently suffered from malarious fevers previously. Bowels had been freely opened by means of a simple enema. On visiting him I found the cold stage had given place to the hot. He was suffering from high fever. The pulse was rapid (130), weak, and compressible; temperature 105°; skin hot and dry, of a bright-yellow hue all over the body. There was great precordial oppression, with nausea and vomiting of blood. The urine also contained blood, and the same material was passed in large quantity by the bowels. The liver and spleen were tender on heavy pressure, but not painful; they were slightly enlarged, probably not more so than in an ordinary case of uncomplicated remittent. There was no headache, but great restlessness prevailed; tongue dry, and covered with a brown fur; thirst intense. Seeing that hæmorrhage was the most serious symptom, I administered gallic acid in fifteen-grain doses, repeated every four hours; cold was applied to the head, and enemata of beef-tea and port-wine were also administered; champagne, and occasionally diluted lime-water, were allowed. Evening: All bleeding stopped. Patient very hot and restless. Vomiting of bile very distressing. Bowels repeatedly open; stools bilious; nausea and oppression at the epigastrium very severe. No pain complained of anywhere except in the small of the back. Thirst intense; effervescing draughts, with chloroform, were ordered to be given at short intervals. A sinapism was applied to the epigastrium, and the injections to be given every hour.

Oct. 10th.—Patient much exhausted. Pulse very weak and rapid; temperature nearly 106°; tongue dry and brown; vomiting and thirst urgent. Urine dark-coloured, containing blood and bile; stools and matters vomited also contained large quantities of bile. The yellow tinge of skin if anything brighter than yesterday. Brandy was substituted for port wine in the enemata, and fifteen grains of sulphate of quinine were ordered to be added to three of these during the course of the day.

11th.—Patient much the same. Restlessness, with vomit-

ing and dry hot skin, as severe as ever. Temperature and pulse unreduced. Secretions much the same, excepting the urine, which contained no blood or albumen. Hydrocyanic acid, with bismuth, were substituted for chloroform in the effervescing draughts, and as no sleep had been obtained, a solution containing half a grain of acetate of morphia was subcutaneously injected. The enemata were well retained.

12th. — Slight improvement observable, although the vomiting and uneasiness at the epigastrium, with thirst and undiminished fever, still continue. Quietness, if not a little sleep, has been obtained by the effect of the morphia, which was repeated to-day, and again in the evening. Chloroform, being more effectual than hydrocyanic acid in the draughts, was again resorted to. The injections, with quinine, continued.

13th.—The vomiting, now freely bilious, is at times replaced by retching. Pulse 120, of slightly greater strength; temperature 103°. Same treatment, with cold sponging, pursued.

14th.—Profuse perspiration has at length taken place. The favourable change, being more marked than yesterday, is now visible to patient's attendants. The skin is more natural in colour, and retching less distressing. Chinchonism is present. Pulse 100; temperature 100°.

15th.—To-day, for the first time, a small quantity of beef-tea has been retained, and considerable improvement in the condition of the patient is noted. Injections, with quinine in slightly diminished quantity, continued.

16th.—Food in the form of beef-tea and chicken-soup has been repeatedly taken yesterday and to-day. Temperature now normal; skin moist, and no sign of a recurrence of the hot stage.

17th.—Injections now limited to one per day, and that more as a vehicle for quinine than for the purposes of nutrition, the stomach being still incapable of receiving irritating substances.

19th.—Convalescence being now fairly established, quinine was omitted. Strength daily on the increase. Very little sleep is, however, yet obtained; so a trial of bromide of potassium was made to-day.

21st.—Enemata now discontinued. None but liquid foods, however, yet given. Convalescence appearing to be very tardy, a tonic of iron and quinine was to-day commenced.

24th.—Health is being gradually attained, and a trial of solid food has been to-day made. Sight, which has been hitherto very dim, is now nearly natural.

28th.—Progress being slow, I have to-day ordered my patient to proceed for change to a station some two miles distant.

Nov. 4th.—Great benefit has been derived from the change, my patient being now in his normal state of health.

The case speaks for itself. To me the points of difference between it and yellow fever consist in the absence of albumen in the urine after hæmorrhage had ceased, the absence of serious cerebral mischief, the absence also of the severe pain in the back so much insisted on by some authors, American and French, as being symptomatic of yellow fever, and the fact of its being so comparatively amenable to quinine. The similarity to yellow fever cannot be doubted. It is the nearest approach to it, excepting the '73 epidemic, I have seen in nearly nine years' practice in Western Africa, and recovery from such malignant attacks must be rare indeed.

Old Calabar, West Africa.

BEQUESTS, ETC., TO MEDICAL CHARITIES.—The executors of the will of Mr. Cumming, of Partick, have under its provisions paid £4000 to the Royal Infirmary, £2000 to the Western Infirmary, £1300 to the Convalescent Home, £1300 to the Dunoon Seaside Homes, and £200 to the Association for the Relief of Incurables, all at or near Glasgow. Mrs. Du Fay, of Frankfort-on-the-Maine, has given £500 to the Royal Infirmary, Manchester. Mr. James Collier has left £100 to the Adelaide Hospital, Dublin, and a similar amount to the Hospital for Incurables, Donnybrook. Mr. Thomas Hughan, of Halkin-street West, bequeathed £500 each to the Brompton Hospital for Consumption, St. George's Hospital, the Middlesex Hospital, and the Dumfries Infirmary. Captain George Blane, R.N., of Prince's-gardens, Knightsbridge, bequeathed £200 to the Seamen's Hospital, Greenwich. "W. D." has given an additional £100 to the Hospital for Women, Soho-square.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

CASES OF OVARIOTOMY IN WHICH ICE WAS LOCALLY APPLIED TO THE ABDOMEN AFTER THE OPERATION, FOLLOWED BY RECOVERY.

(Under the care of Mr. BRYANT.)

THE following report is continued from page 806.

CASE 2.—*Ovarian cyst; ovariotomy; application of ice to the abdomen; recovery.* (The notes of this case were taken by Mr. Phillips.) — Lydia R——, aged forty-three, was admitted on Aug. 1st, 1878. The family history and the general health were both good. Two years before admission she slipped and fell on the left side of her abdomen. She was in a good deal of pain for about two months after. No hæmaturia. She got about for some time after this, but was again laid up with "spasms" in her abdomen. She stated that ever since she fell her abdomen had been increasing in size. Had had no medical advice. A week ago she consulted Dr. Coleman, of Surbiton, who advised her to enter the hospital. She was regular before the accident, but had only menstruated twice since it occurred, and had lost flesh considerably.

On admission she was very thin in the face, but was cheerful. The abdomen was enormously distended; fluctuation very distinct; measurement 48½ in. As she was too feeble for operation a preliminary tapping was proposed, which was accordingly done on Aug. 6th, the operation having been delayed on account of neuralgia. Thirty-three pints of ovarian fluid were withdrawn.

On Aug. 18th the abdomen was evidently filling again rapidly.

On Sept. 6th ovariotomy was performed. Temperature before the peration, 98·8°; after, 98·4°. Twelve pints of fluid were taken away with the cyst, which was multilocular, and adherent almost everywhere—namely, to the liver, stomach, abdominal walls, and omentum. The pedicle was secured by a clamp. The abdominal cavity was carefully cleansed with sponges washed in iodine water. Ice was ordered to be kept applied to the abdomen and also to the head, and a morphia suppository was given. At 2 o'clock next morning she was in considerable pain. Morphia was again given. Slight vomiting occurred. Temperature 100·1°. Slept fairly well. At 10.30 A.M. she seemed very comfortable. Ice-bag still kept to the abdomen and head.

On the 9th the ice-bag was discontinued, on account of patient's objection to it. Temperature 100°; patient comfortable.

On the 10th she was restless. Temperature 102°. Next day the wound was dressed and one stitch was removed. Primary union had taken place. Temperature 101·2°. The morphia suppository, which had been given daily, was ordered to be discontinued, but as there was pain in the abdomen in the evening, an hypodermic injection of morphia was given. She had a good night.

On the 13th she partook of eggs, fish, and beef-tea. Temperature 100·4°. Slight bronchitis.

14th.—11 A.M.: Temperature 102·3°; pulse 100. Temperature 101° immediately after dressing.

15th.—11 A.M.: Temperature 100·4°; pulse 90.—9 P.M.: Temperature 99°. One grain of opium.

16th.—Morning: Temperature 101°. Ice-bag again applied. — Evening: Temperature 103°; pulse 100. Slight diarrhœa.

From this time until the 24th the temperature ranged from 99° to 102°, and there was slight diarrhœa occasionally. On the 21st the patient was decidedly better; on the 25th the clamp came away; on the 28th the temperature fell to normal, and remained so; and by October 1st she was convalescent. In this case also the wound was not dressed for

the first three days, but was dressed every day subsequent to the operation.

CASE 3. *Ovarian disease; ovariotomy; ice applied to abdomen; temperature normal; recovery.*—Jane L——, aged thirty-three, was admitted on Oct. 7th, 1878. Her mother's sister had ovarian disease, and was operated on, but died on the fifth day after the operation. Two sisters died from cancer of the breast. The patient's previous history was good; had had four children. The catamenia were quite regular till the summer of 1877, when they became very profuse, occurring once a fortnight. This continued till March, 1878, after which the flow became irregular and scanty. In January, 1876, she was seized with violent pain in the left side, accompanied by sickness. Her medical attendant called in Dr. Barnes, who considered it necessary to induce premature labour. This was accordingly done, and she was delivered of a seven months' child, still living and healthy. After delivery everything appeared to go on well with the exception of some swelling in the abdomen which remained. This swelling slowly increased, and was said to be due to disease of left ovary.

In March, 1878, she had another violent attack of pain (not so bad as the first, and not accompanied by sickness), but this time in the right side, which lasted for three weeks. After this the abdominal swelling rapidly increased in size; patient had never been tapped.

On admission she was thin and rather delicate-looking. The abdomen was very much enlarged, and was occupied by a cyst with thin walls, but at the lower part there appeared to be a more solid portion. Measurements: 41 inches round at umbilicus, 8½ in. from xiphoid cartilage to umbilicus, 11½ in. from umbilicus to pubes.

Dr. Galabin examined the case, and reported as follows: "Lower segment of tumour can just be reached in front of cervix; uterus posterior in a slightly retroflexed position; sound passed three inches, and uterus is fairly movable by its means. Tumour appears to be a polycystic ovarian with a large cyst towards the upper part. I should consider it favourable for operation, and expect that there are no adhesions of consequence."

On Oct. 8th the woman was removed to a private room, and ovariotomy was done on the following day. The tumour was polycystic. The cyst contained eighteen pints of thick brownish fluid. There were one or two adhesions to the omentum. Bleeding very slight. There was no fluid in the peritoneal cavity. Morphia suppository was given, and ice-bags were applied to abdomen. She slept a little in the evening. Had no sickness or retching. A suppository given, and the urine was drawn off. She passed a quiet night, in a doze all the time. Sick a little about two o'clock in the morning, and again at nine, retching three times. At 11 A.M. (10th) she had slight pain in back; skin moist, tongue a little dry.

On the 11th, 10.30 A.M., tongue moist, no sickness or pain. Morphia suppository given. Slept nearly all night. Temperature 97·8°; pulse 108.

On the 12th there was some sanious discharge from vagina. Temperature 98°.

From this date there was very little trouble except some incontinence of urine. The bladder was washed out daily for four or five days with warm water and a weak solution of quinine. A little mucus came away at each washing, and on the 15th the fluid that returned was tinged with blood. The incontinence passed off on the 17th. On the 14th the sutures were removed; primary union had occurred down to the pedicle. The clamp came away on the 21st. On Nov. 16th she left the hospital well.

LEEDS GENERAL INFIRMARY.

A CASE OF OPIUM-POISONING TREATED BY THE SUBCUTANEOUS INJECTION OF ATROPINE; RECOVERY.

(Under the care of Dr. EDDISON.)

FOR the following notes we are indebted to Mr. W. H. Brown, house-surgeon.

M. D——, aged thirty-five, who was admitted at 9 P.M. on Feb. 13th, was said to have taken about six drachms of tincture of opium an hour before. On admission he was able to answer questions, but manner irritable; pupils contracted. He refused to allow the stomach-pump to be applied. Twenty grains of sulphate of zinc were administered at once.—9.40 P.M.: No sign of vomiting; patient drowsy, and unable to stand without assistance. Stomach-pump used, and about twelve ounces of brownish fluid withdrawn. Strong coffee was injected into the stomach, and the patient was "walked" about the corridors between two assistants. 11.20 P.M.: Patient worse; more sleepy; could only be roused by violent shaking and the application of a wet towel. Pulse 120; respiration 15; pupils almost pin-point. One-tenth of a grain of sulphate of atropine injected, and patient allowed to lie down. Immediately the condition slightly improved, and continued up to 12.20 A.M. on the 14th, when he became utterly unconscious, and incapable of being roused even by the most violent means (wet towels, faradaism, &c.) Pupils still contracted; pulse feeble and rapid; respiration 12, and falling. A quarter of a grain of sulphate of atropine was injected subcutaneously at 12.20.—12.40 P.M.: Patient somewhat better. Pulse about 130; respiration 18; pupils dilating. No return of consciousness; extremities cold; sleep more natural.—1.10 P.M.: Respiration suddenly sank to 12, but rose again to 20 after artificial respiration had been kept up for about ten minutes. Pulse good; surface of the body warmer. From this time up to 8 A.M. the patient slept, and though attempts were made at intervals to rouse him, they were met with only partial success. At 8 o'clock he awoke, was able to answer questions put to him, took some breakfast, and from that time had no further trouble, and continued quite well up to the date of his discharge from the hospital (Feb. 25th).

Remarks by Dr. EDDISON.—In this case, as in so many others of the kind, it is impossible to say how much opium was actually absorbed; and it is equally impossible to say positively that the man would have died if the atropine had not been used. The case may, however, be taken for what it is worth, as a contribution to the disputed question whether we ought to administer atropine in cases of opium-poisoning. The time when the opium was taken is known; the symptoms gradually increased in severity; they were unaffected by one-tenth of a grain of sulphate of atropine; and all the usual means were adopted without any apparent prospect of saving the patient's life. Then, about four hours after the opium had been taken, and when the symptoms of poisoning were worse than they had been, and when the patient was absolutely unconscious, and could not be roused, one-fourth of a grain of sulphate of atropine was injected. Within twenty minutes the respiration went up from 12 to 18, and the pupils began to dilate, and, except that respiration failed for a short time, the effect of the opium gradually passed away, and in seven hours more the patient awoke, and took some food. With the exception of a slight bronchial catarrh, he remained perfectly well until his discharge. It may be said that he would have recovered without the atropine; it remains, however, that the change for the better took place almost immediately after the atropine was injected, and just when the evidence of its action on the pupils became manifest. Without making too much of a single case, it may be fairly said of this one that it in no way supports Dr. John Harley's opinion as to the effect of doses larger than 1-96th of a grain; nor, indeed, does it support his views as to the use of belladonna in opium-poisoning at all, for it seems evident that, whether the tenth of a grain did any good or not, the quarter of a grain injected an hour after certainly did no harm. It should be remembered that faradaism, local stimulation, heat, forcible dragging about, as well as frequently-renewed artificial respiration, were all fully tried, apparently without any permanent good results, and there really appears to be every reason for concluding that the atropine had a great deal to do with the patient's recovery. In speaking of the use of atropine sulphate in opium poisoning, Dr. John Harley says distinctly: "If larger doses [than one ninety-sixth of a grain] be given, or if smaller doses be too often repeated, the beneficial effects of belladonna will be converted into a depressant and narcotising influence." The solution used in this instance was prepared at the time by the house-surgeon, Mr. Brown, who conducted the treatment, and there is no reason for supposing that it was not of usual strength. Yet in face of so clearly-stated an opinion given by Dr. Harley as the result of many observations, it is not surprising that many men still use only the ordinary means in cases of opium-poisoning, and prefer to avoid the risk of being accused of increasing the poisonous action of the opium. In most cases of this kind we can only guess at the amount of opium that has been absorbed, and rules stating that such and such an amount of atropine will neutralise such and such an

amount of opium are, unfortunately, not of much practical value. We require to know how much atropine should be given in the presence of symptoms which can at best only be described in a more or less definite way. The dose in this case seems to have been exactly appropriate, and it certainly cannot be said that the atropine did any harm or in any way increased the depression of the narcotism.

WARRINGTON INFIRMARY & DISPENSARY.

INTERCARPAL DISLOCATION.

(Under the care of Mr. C. E. RICHMOND.)

DENNIS S——, aged forty-seven, miner, a muscular subject, with well-defined anatomical "points," was admitted March 14th, 1879. He was working at a thrashing-machine, when the strap of the fly-wheel caught his arm and dragged him up to the top of the wheel (the height of which was stated to be about nine or ten feet), from whence he fell on his hand. He could not state whether he fell on the back or palm of the hand. There were several skin lacerations (done by the strap) midway up the forearm, but no fracture of the radius and ulna was discoverable. There was, however, marked deformity at the left wrist. The length of the hand from the wrist to the knuckles was very noticeably shortened. There was a prominent transverse ridge on the dorsal aspect of the wrist beneath the ends of the radius and ulna; and below this ridge there was a marked depression. On the palmar aspect the base of the hand was unduly prominent, the general direction of the metacarpal bones being quite altered by their bases being pushed forwards towards the palm. The diameter of the wrist, both laterally and antero-posteriorly, was much increased. There was not very much bruising or swelling of the soft tissues themselves, though the circumference of the wrist, taken round the extremities of the radius and ulna, was one inch and a quarter more on the injured than on the sound hand, and below this point the difference was even more marked. He was unable either to flex or to extend his hand himself.

On examination the ends of the radius and ulna seemed separated from each other somewhat. The transverse dorsal ridge before mentioned could be demonstrated to be the first row of carpal bones, with the semilunar rather unduly prominent. Between this ridge and the ends of the radius and ulna the movements of flexion and extension, although restricted, could be obtained with considerable ease and without any crepitus. Below the ridge the extensor tendons could be plainly felt stretching across the depression to the fingers.

The articulation between the thumb and the trapezium was not interfered with, nor had any of the articulations between the metacarpals and second row of carpals sustained any injury. On the palmar prominence before mentioned the trapezoid could be felt pushed more anteriorly than, and considerably above, the level of the trapezium, and nearer the ulnar side the head of the os magnum could be felt overlapping slightly the ends of the radius and ulna, which on the palmar surface were quite obscured; and on flexion and extension of the hand the os magnum could be felt to ride on their anterior surface. The displacement of the unciform, although distinct, was much less marked. Under no circumstances could any crepitus (other than that attributable to effusion) be detected, nor was there any sign of fracture whatever.

The result of examination showed that the second row of carpal bones was dislocated from the first forwards and upwards, the displacement being most marked in the case of the trapezoid and os magnum.

Dr. Young, of Owens College, kindly made the accompanying sketches of the deformed hand, which represent an accident almost unique in surgery.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

The Movements of the Eyelids.—Ophthalmoscopic Appearances in Tubercular Meningitis.

THE ordinary meeting of this Society was held on the 10th inst., the President, Mr. J. E. Erichsen, in the chair. Four papers were read, one on the movements of the eyelids, by Dr. Gowers, another on the ophthalmoscopic appearance of tubercular meningitis by Dr. Garlick, which raised a short discussion, as also did a paper on excision of cancerous stricture of the rectum by Mr. Guy.

A paper was read on "the Movements of the Eyelids," by W. R. GOWERS, M.D., of which the following is an abstract:—Under normal conditions the lids leave the cornea approximately uncovered in all positions of the eyeball, moving with it. For these movements and for the voluntary closure and opening of the lids, there are only two muscles, the orbicularis and the levator. These will not explain all movements, and it is probable that the eyeball itself moves the lids, not by the conjunctival connexion, but by the pressure of the convexity of the sclerotic, and to a less extent of the cornea, the edges of the lids lying in or near the sclero-corneal sulcus. This effect is greatest on the upper lid, partly because the tarsal cartilages are attached at their extremities below the transverse axis of the eyeball. The eyelids are moulded on the globes, the shape of the palpebral fissure depending on the position of the eyeball, and being curiously altered in some abnormal lateral positions. In closing the eyelids gently the lower lid is raised by the palpebral orbicularis; in rotation up of the globe the lower lid is raised, not by the orbicularis, but by the pressure of the globe, and the movement is slight if the globe is very prominent. Depression of the lower lid in looking down is by pressure of the cornea. The upper lid is maintained in position by the balance of tone between the levator and the orbicularis. If the latter is paralysed, the lid is a little higher than normal. The descent of the upper lid, in looking down, is not by contraction of the orbicularis (for it is unaffected in facial palsy), but is by the pressure of the sclerotic against the tarsal cartilage. The lid is raised on upward rotation of the globe by the levator, the contraction of which, if sudden, is excessive. With this is associated a synergic action of the frontalis; the latter is sometimes habitual, and then is relaxed with the levator on looking down. The action of the levator associated with that of the superior rectus is beyond voluntary control, and, in the simulated ptosis of hysteria, necessitates a strong contraction of the orbicularis to keep the lid down, if the patient is made to look up. The associated relaxation on looking down prevents almost all voluntary contraction of the levator in that position. Gentle closure of the lids, as in sleep, is by the palpebral orbicularis; the levator being relaxed, the recti passive. Forcible closure is by the whole orbicularis, the levator being released and dissociated from the superior rectus, which contracts, rolling the globe up. Hence, probably, the centre for strong closure of the eyelids is physiologically distinct from that for their gentle closure. If the orbicularis is paralysed the associated inhibition of the levator still occurs on an attempt to close the lids. But, if the inferior rectus is paralysed, a fruitless attempt to rotate the eyeball down is not attended with inhibition of the

levator. This phenomenon (of which photographs were shown) is difficult to explain. Possibly, this relaxation of the levator is not the result of a central mechanism, but is reflex from the commencing tension on the fibres, and so does not occur if the globe does not move. If so, the fact is of much interest in relation to the mechanism of other movements in the body. Lastly, it is pointed out that the eyelids commonly participate in the movements of the eyeballs in vertical nystagmus. After the reading of the paper, Dr. Gowers exhibited a patient who illustrated well the dissociation of isolated voluntary movements of the upper lid from the action of the superior rectus. She had slight double ptosis, more on right than left side, and had no power to bring the eyelids voluntarily into normal position. When she looks up, however, the levator contracts to full degree in conjunction with the superior rectus.—Dr. BAXTER asked for an explanation of Graefe's phenomena in Graves' disease, when the upper lid fails to accompany the globe in its downward movement, so that a zone of white sclerotic is left between the lower edge of the upper lid and the cornea. Dr. Gowers had pointed out that normally the descent of the eyelid was due to a relaxation of the levator occurring synchronously with contraction of the inferior rectus, the globe dragging the lid down. If there were exophthalmos this mechanism should be even more marked; or it might be that marked exophthalmos would prevent the fall of the lid. But in two cases of Graves' disease Dr. Baxter has now under care, there is no exophthalmos, and yet in both Graefe's phenomenon is marked.—Dr. GOWERS, in reply, said that since his attention had been directed to the subject he had not had the opportunity of examining cases of Graves' disease.

The following is an abstract of a paper on the "Ophthalmoscopic Appearances in the Tubercular Meningitis of Children," by GEORGE GARLICK, M.D.:—The ophthalmoscope discloses changes in the optic discs of about 80 per cent. of the children who die of tubercular meningitis. These changes fall under one of two heads—viz., optic neuritis or distension of the retinal veins alone. As the discs vary physiologically in different individuals and even in the same person, the two are often not alike; progressive change is better evidence than can be obtained from a single examination. In a small proportion of cases the optic changes occur very early in the course of the disease, and enable a diagnosis to be made when the symptoms are equivocal; this is the case when the meningitis is seated chiefly about the optic commissure. But the ophthalmoscopic changes are an important factor in the diagnosis in a much larger number of cases. The two forms of disc change—viz., optic neuritis and distension of the veins—appear related respectively to meningeal inflammation and pressure. The intracranial pressure may result from excess of ventricular or of subarachnoid fluid, and gives evidence of its presence in the anæmia of the cranial contents. The palsy of the limbs is mostly found on the side opposite to that hemisphere of the brain which presents that greatest meningeal affection. No such definite relation exists with regard to the optic discs. In many cases of tubercular meningitis which run an indefinite course, especially those which are secondary to some other advanced disease, the optic changes share the indistinctness of the other symptoms. The ophthalmoscope countenances the idea that some cases of tubercular meningitis recover, and even in fatal cases a temporary improvement may occur in the discs. Tubercles of the choroid appear to be an uncommon complication.—Dr. COUPLAND confirmed from his own experience the statement as to the rarity of choroidal tubercle. In upwards of five years at the Middlesex Hospital he had not met with it more than four times, two cases occurring in 1874 being recorded by him in the Path. Soc. Trans. This did not bear out Cohnheim's belief as to the frequency of choroidal tubercle in general tuberculosis.—Dr. GOWERS testified to the extreme exactness of Dr. Garlick's observations, which proved how much could be learnt by careful and continuous observation from day to day. Many depended too much upon a single examination, but Dr. Garlick had shown that the progressive changes were a chief feature in the diagnosis. His observation as to the distension of the optic sheath with subarachnoid fluid confirmed Graefe's statement that the optic neuritis of tubercular meningitis was always descending, a statement which has been disputed by many. It was true that Cohnheim's observations have not been confirmed in this country, but Cohnheim himself stated that choroidal tubercle occurred less frequently in connexion with cases of tuberculosis with meningitis than in those without it.—Dr. BARLOW also bore testimony to the value of the careful and continuous observations of Dr. Garlick, and the truth of the fact stated that it was necessary to watch the cases from day to day in order to arrive at just conclusions. The separation of the changes into two distinct forms was a considerable advance. Dr. Barlow thought that the mechanical theory of optic neuritis would have to be abandoned, and that the condition should be looked upon in the light of affections of homologous tissues, the retina being only a prolongation of the brain. The great frequency of softening of the brain-substance in tubercular meningitis, as compared with simple meningitis, pointed to changes in brain-tissue itself in the former disease. He had specimens of six cases of tubercle of the choroid; and he would be inclined to associate the choroidal affection with the disease of the pia mater, and the optic neuritis with cerebritis.—Mr. PARKER asked if there was a history of injury in each of the cases of recovery. In all the instances of recovery from so-called "tubercular meningitis," injury had been the starting-point. Dr. Barlow's remarks interested him, because for some time he had thought that cases of tubercular meningitis should more properly be styled "cerebritis." In microscopical examination of one case he had found both brain and spinal cord the seat of extensive small-celled infiltration, without any marked change to the naked eye.—Dr. BAXTER gave the result of the experience of the Evelina Hospital for the past seven years with regard to choroidal tubercle in tubercular meningitis. As a rule there was optic neuritis, but in no single instance was choroidal tubercle found. In one or two cases of general tuberculosis without meningitis tubercles had occurred in the choroid.—Drs. COUPLAND and BARLOW said that meningitis was found in the cases they had met with.—Dr. GARLICK, in reply, said that there was a history of slight injury in one of the cases of recovery, but too much weight should not be placed upon histories of injury. In the other three there was no such history; in one there had been previous otitis. *(To be concluded.)*

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting on June 4th (Dr. W. S. Playfair, President, in the chair), the discussion on

THE USE OF THE FORCEPS

was continued, and again adjourned till the meeting in July.

Dr. EDIS: In moving the adjournment of the discussion, I feel sure I but expressed the wish of many present that we should have a still greater length of time devoted to the consideration of a subject so ably and so exhaustively introduced by one whom we are all pleased to honour. The subject itself is of great importance, not only to us as a profession, but to the public at large, and to countless thousands of children yet unborn, whose prospects of existence depend upon the management of their mothers during their entrance into this world. The last published accounts of the Registrar-General for 1876 tell us that in England alone over 4000 mothers succumbed to the accidents or diseases incidental to childbirth, to say nothing of another thousand who died after childbirth from various diseases not referred either to childbirth or to metria in the abstract. This is no great fatality for one year, for during the last thirty years—from 1847 to 1876—an average of 3500 per annum have, alas! gone over to the major part by accidents and diseases of childbirth; and, therefore, any consideration that we can give to this subject I am sure will not be thrown away. When we consider that we are dealing, not with the statistics of any severe disease of whose bearings we know little or nothing, but with the carrying out of a mere physiological function at the time the powers of life are presumed to be in full working order, and where, in the majority of instances, it is under skilled supervision, I think we must reproach ourselves somewhat that the mortality still keeps up to the extent that it does. The triumph of modern surgery is its conservatism, that of medicine its preventive

aspect, and unquestionably the direction in which we must labour to bring obstetrics up to a corresponding footing is to endeavour to avert the dangers and difficulties likely to beset us, and not so much to rely upon our treatment of those actual dangers when they have been allowed to come into existence. The question then before us is the prevention and management of lingering labour, especially with reference to the employment of the forceps and its alternatives. Let us take them in the order in which Dr. Barnes himself has given them. And first we take expectancy. Now expectancy is all very well, but unfortunately we leave too much to our patient and too little to ourselves. How often does it happen, when we are summoned to the lying-in room, we find, instead of our patient having been put into proper training, as is usual in the case of a race or any muscular effort which one might be called upon to go through—how often do we find her in this state: that her sleep for a long while past has been disturbed, that her digestion has been interfered with, the functions of the body not properly performed, and yet we expect that patient to go through what is after all a very trying process. But, supposing we have taken some little pains to see that our patient is brought into a proper state to go through labour, then I contend much may be done in seeing that she does not expend her powers fruitlessly. How often do we find that hour after hour and day after day goes by, and still our patient is in the agonies of child-bearing. Unfortunately, it seems to me, the practice of obstetrics appears to engender in the minds of many a tendency to trust implicitly to nature—to wait and watch to see what will come of it. We prescribe largely, as has been said, the tincture of time instead of applying the essence of others' experience, and very frequently allow our patient to get into such a condition that all our efforts are fruitless to rescue her. Therefore, in taking up a subject like this, I think our attention should not be altogether limited to the question of what by many is considered a *dernier ressort*. I consider myself that the forceps is an aid to labour, to supplement the defective arrangements of nature, if we may so say, and that we have no business to treat it as the *ultima ratio*, as it were, which is looked upon with such great dread, or was until recently. If forceps were only used judiciously and when the occasion properly demands it, I feel sure that many would not only sanction it, but look forward to its help in their time of difficulty. Expectancy, as I say, may be carried too far. The moment we find the least evidence of flagging power, of any cessation of pains, any intermittence in the regular beat or any acceleration of the patient's pulse, or any general evidence of the patient having had more than she can fairly compass, I think we are bound in duty to assist the patient, and not to allow her to go on until she is in powerless labour. Then the question will arise, What shall be done? There are many simple expedients that I fear are too frequently overlooked. Dr. Matthews Duncan has shown us that, under ordinary circumstances, the mere propelling force of labour is about forty pounds; and in any extraordinary case of labour, where unusual effort is made, the propulsion exercised by the uterus or by the abdominal muscles, with the voluntary efforts that the patient herself can make, does not exceed eighty pounds. Now, I think, as our President has so ably pointed out in his late systematic treatise, we have within our power a very simple expedient by placing the patient in any position—in the ordinary obstetric position on the left side or on her back, or in any position,—that by pressure upon the uterus externally we can very frequently apply an equal if not a greater pressure than that which nature herself is expending upon the process. We can in this way exert a pressure of sixty to one hundred pounds. This can be tested by a spring balance, and determined as a simple matter. I think in many cases we may assist our patient very materially by exercising a certain amount of compression. Then, in too many cases, I feel sure the binder is too much neglected. I often suggest to a patient, "I think we will have a binder," and sometimes both nurse and patient seem to think that one is doing something very extraordinary. I appeal to those present whether in their individual experience they are in the habit of applying the binder to patients before the child is expelled. Then, supposing this simple means fails, and we have taken care that the patient is not utterly exhausted from want of nourishment or occasional rest, by giving her an hour or two's sleep, then, having exhausted those means, I think the question will naturally arise, "Shall we give her ergot or apply the forceps?" For myself I consider ergot not only an uncertain, but a very treacherous, remedy. In many instances it exerts a power far greater than we had the intention of giving, and by doing that we are simply encouraging the very dangers we are so anxious to escape—that is, rupture of the uterus, the tearing of the soft parts, injury to the mother, or death of the child, or actual compression of the uterus; and I think after the nervous force that supplies the uterus has been expended for many hours in contracting the uterus, and when the powers begin to flag, it is very unphilosophical of us to attempt to stimulate it; it is far better for us to supply some extra force. That can be done, without any attempt to stimulate the already overtaxed and overworked muscular fibres, by the application of forceps. The thing is as simple as possible. Unfortunately the education at the present day, or up to the present day, has been so neglected in this department that many men do not feel themselves competent to apply forceps, and therefore give ergot. I think this obstetric education is at the root of a great deal of misunderstanding as regards the utility of the forceps. Now we will go on a little further. "The chief contest turns upon the use of the forceps in the second order of cases. Does lingering labour occur so as to entail danger to mother and child during the first stage of labour?" I believe, in conjunction with many who are called consultants, that we can see things from a standpoint that others look at from a totally different bearing. I can answer this question unhesitatingly in the affirmative, that lingering labour does occur so as to entail danger to the patient. Not long since I was asked to see a patient in consultation who had been allowed to go on for three consecutive days and nights in labour. The practitioner's explanation was that the os was not dilated, and when I explained to him that the membranes had ruptured sixteen hours after the commencement of labour, he saw the difficulty at once. I succeeded in delivering the patient, and could have done so in all probability some two or three days or nights previously. Dr. Barnes asks: "Is the application of the forceps ever necessary or useful before the full dilatation of the cervix uteri?" This is the most important of all, and I wrote to Dr. Johnston asking him if he would entrust me with any views he might have bearing on this part of the question. From his letters to me I have extracted a few remarks which I think are worth recording. He says: "I beg leave to say, in answer to the first query, I consider that the forceps are necessary and useful before the os is fully dilated, in order to avoid danger to the mother, in cases where the liquor amnii has escaped at the commencement of labour, which would otherwise accrue by the pressure of the child's head upon the cervix, particularly when it is retained at the brim, and more so where, through any cause, there may be delay. This danger may also occur in cases where, although the membranes are unruptured, the waters remain above and the fœtus descends upon the cervix. In such cases the forceps is equally necessary, as by its timely use you prevent the liability to inflammation and sloughing, and, mayhap, complete separation of the cervix from the body of the uterus, and death, as in one instance occurred with myself, and was the reason which induced me to adopt the method. The danger to the child, particularly when the liquor amnii has escaped, is from the frequent uterine action of the labour pains producing compression of the placenta to such a degree as to prevent the circulation of blood through the organ, and this causes the death of the fœtus. Another reason for the timely aid of the forceps is in cases of extremely nervous, delicate females, so ill able to bear the exhaustion and fatigue of the labour pains (even though they may not be protracted to any lengthened period), and from which they so slowly and with such difficulty are brought to convalescence. In such cases the early application of the forceps is attended with the most beneficial results, as I have frequently experienced. These, among others, are the principal reasons why I advocate the measure. I may add that since the expiration of my mastership of the Rotunda Lying-in Hospital in 1875, I have performed the operation in several instances under the foregoing circumstances, and have every reason to say that the more I have done so the more am I convinced of the great advantage I have derived from the practice." I do not hesitate to read these remarks, coming as they do from such an important authority, although I believe Dr. Johnston is represented here by one of his late assistants, whom I hope we shall have the pleasure of hearing shortly; and I think also it is only fair to Dr. Johnston that they should be read, especially as his name has been

called in question. He says further: "On looking over Dr. Barnes's paper on the use of the forceps when the os is undilated, I would wish to draw attention to a few of his observations. First, I perceive, when speaking of the application of the blades, he says 'this is generally not very difficult.' Now, fearing that this might lead the casual reader to think lightly of the proceeding, I should wish that it be distinctly understood that although there may be no difficulty, still the greatest care should be taken and nicety observed in the introduction of the blades, lest the point may slip outside the os, and be pushed into the posterior cul de sac and through the peritoneum, thus causing considerable injury, attended with the most dangerous consequences. Secondly, in his allusion to traction, he says, 'if the os is dilatable.' I may state that under no other circumstances is the operation justifiable. When there is not that danger, which he states, 'of dragging down the whole uterus and child,' in any way, we always found the os gradually yield under the gentle traction which, until it is expanded, should only be employed. In no instance of the 169 cases recorded did such an occurrence take place. Thirdly, speaking of the length of time occupied in the delivery of the child being 'an hour or more,' I have only to say that in our cases the duration of the operation did not extend beyond twenty to thirty minutes, except in one instance (that of a case of deformity from an exostosis at the brim), when it lasted three-quarters of an hour, in a woman in her ninth pregnancy. The child, a female, weighed 7lb. 12oz., was born alive and lived, in whose head there was a depression of the left parietal bone three inches and a half by one and three-quarter inches in breadth, and three-eighths of an inch in depth. Both mother and child went out well on the twelfth day. Fourthly, he mentions the amount of bruising of the soft parts and tearing of the os uteri. Now, I can say that in our practice there was none, if I except the case of sloughing of the vagina mentioned in the reports, and which was caused by the too frequent examinations made during labour before the operation. And as to the tearing of the os, in all the cases which died, on post-mortem examination the os was found not more bruised than what would have occurred in primiparæ during ordinary labour. Fifthly, in his remarks as to the "increased amount of suffering during the dilatation," I beg to say that we avoided it by (as was our invariable rule) putting the patient under the influence of chloroform before proceeding to operate. And with regard to the 'liability to retention of the placenta,' we had only two instances, one from morbid adhesions and one from irregular contraction; and as to its 'predisposing to the danger of post-partum hæmorrhage,' the number of cases in the 169 recorded where post-partum hæmorrhage followed amounted to four, but they were of so trifling a nature that two were quite convalescent, and able to go out on the eighth day, one on the ninth, and one on the tenth day. This last was in delicate health on her admission, so that I consider it must be allowed that in our practice, at least, there was not that predisposition. I have merely to say with what pleasure I have read Dr. Barnes's paper, and cannot conclude without expressing my gratitude to him for having taken such a considerate and rational view of the practice, feeling certain that in course of time the early use of the forceps in skilful hands, so far from it being attended with danger, will be proved to be of the greatest advantage in saving the life both of mother and child." It is only a very few years since I brought before the Society my own views on the subject of forceps, therefore I will not occupy your time any further, seeing that we have with us several eminent Fellows who honour us by their presence, and will, I hope, take part in the discussion. I trust, however, that the question will not be discussed entirely upon the forceps itself, but that we shall consider the alternatives both as regards prevention and the management of lingering labour when it has been allowed to occur.

Dr. LOMBE ATTHILL (Master of the Rotunda Hospital, Dublin).—It is with very considerable diffidence that I take any part in this discussion, for several reasons. The principal one is, that my views are so very much in accordance with those which have been already so ably and clearly put before you by my friend Dr. Barnes that I really have very little to add; but, Sir, I felt that the repeated and pressing invitations which have been kindly given me by your secretaries and by fellows of this Society should be responded to. Occupying as I do the position of master of the Rotunda Hospital, the greatest school of clinical midwifery in this kingdom, I felt it was my duty to state what our practice was, and what my experience in the question under discussion is. Since I was appointed in November, 1875, we have had about 4000 patients delivered in the hospital. The exact number up to the 1st of May last delivered in the hospital during my mastership was 3958. Of those patients, 279 were delivered with the forceps—in round numbers 1 in 14. In our extern maternity, during the same period, we had 2486 deliveries, of whom 85 were delivered with the forceps, or 1 in 29. You will remark that our deliveries by the forceps in the hospital are just double those in the extern maternity. But, Sir, in estimating the inference to be deduced from these figures, it is necessary to bear in mind of what class our intern patients are composed. In the first instance, a very large majority of them are primiparous; and I need not say that in cases of primiparæ the forceps are more frequently used. Next, we have a number of patients who seek admission because they are cases of difficulty. Admission to the lying-in wards of the Rotunda Hospital is absolutely free. The consequence is, if a woman has been a long time in labour and becomes alarmed at her labour being tedious, she may herself seek admission, and is at once admitted. Again, patients are sent in to us by general practitioners and by the poor-law medical officers simply because they are cases of difficulty. Moreover, from time to time patients are admitted from the provinces simply because their previous labours have been difficult or dangerous. Now, what the exact proportion of patients coming under this class is we cannot say with certainty; but suppose that only some twenty are admitted in the year, even that number would considerably modify the inference to be deduced from the figures I have given you. I make these remarks because I consider the proportion of one in fourteen is rather large if taken on an area of general practice, and it is my wish if I can to prevent the undue use of forceps in cases in which they are not absolutely necessary. But, Sir, if any aid is necessary to midwifery, I feel that the forceps is superior to any other. With respect to the administration of ergot, it is absolutely given up in the Rotunda—I may say prohibited, because we do not allow it to be given in the extern maternity any more than in the hospital. With respect to the compression of the abdomen, that is a practice which I must say I consider at least unscientific and calculated to be very injurious. As to the introduction of the fingers in the rectum with a view of expelling the head, it is a proceeding calculated to injure the soft parts of the mother; it is most irksome to her, and I suppose equally irksome to the practitioner himself. But on this point—that is, the use of the forceps when the head is low in the pelvis—I think that there is nearly a unanimity of opinion, as far as I can judge from reading the discussion which has taken place in this Society. The real question at issue is whether the use of the forceps is justifiable in cases in which the os is not fully dilated. Now, I do not think it is possible that any practitioner of experience who has thought over this subject would say that the forceps should not be used because the os is not fully dilated. I use it, but in as few cases as possible. When the head is low in the pelvis and the os fully dilated, we have no hesitation in applying forceps, and, I believe, rightly so; but when the os is not fully dilated, no matter whether the head is above the brim or, as is sometimes the case when a fœtus is small, when the head is low in the pelvis, I object to use forceps unless the condition of the mother is such as, in my opinion, warrants its use. As an illustration, I will mention a case which occurred just before I left Dublin. A woman had been six hours in labour with her first child. The waters were five or six hours evacuated; the os nearly fully dilated, but not quite; the head just at the brim; the os soft and dilatable; the patient getting exhausted and restless, saying, "Oh, how tired I am"; the pulse risen in two hours from 80 to 105. In this case I applied the long forceps, and I may here say the forceps we invariably use are those known as Dr. Barnes's double-curved forceps. I delivered the patient, with the greatest facility, of a living child, both mother and child being now perfectly well. I am, however, satisfied that a certain number of practitioners under-estimate the danger which may occur from too early use of the forceps before the os is fully dilated, and I believe that is due to the fact that they do not distinguish between the two very different classes of cases with which they have to deal. In some cases the os is so soft and easily dilatable that delivery is effected with the greatest possible ease and safety. In some cases it appears to me that to talk of the os not being

fully dilated is really hardly correct. Over and over again I have watched a case in which the os could be distinctly felt. Keep your finger in contact with the os uteri, and as the pain comes on it will all but disappear; but if the pain is inefficient, the head will speedily recede as the pain goes off, and the os contract to the same condition as before. I have watched such cases a considerable length of time, and these are those cases in which one is tempted simply to apply forceps—a perfectly safe proceeding, but a most unjustifiable one; but it is far different with another class of cases. I think we are too much in the habit of talking of the "os uteri being dilated," or "undilated," as if the os were a mere rim, to dilate which all difficulty was over. But in point of fact we should in most cases speak of the "cervix" rather than of the "os uteri"; the whole lower segment of the uterus has to dilate during labour, and it is this undilated cervix which often opposes us. I have more than once applied the long forceps when I thought I had to deal with the os only, and found that my efforts to deliver were opposed by the condition of the cervix. The whole uterus descended as traction was being made, till the lip of the os appeared at the very ostium vaginæ. These were cases in which delivery had become imperative; but consider the pressure to which the cervix must have been subjected between the child's head and the pelvic wall before delivery could be effected, and how great was the danger of laceration of the cervix. This induces me to avoid the use of the forceps before the os is fully dilated in all cases in which I can do so; but, on the other hand, if a case occurs in my practice in which I believe it imperative to deliver the woman before the os is fully dilated, I unhesitatingly have recourse to the use of the forceps, notwithstanding that the os uteri is not fully dilated. I believe that practice is safer than the practice of version, and I say that with a certain degree of confidence from a not very limited experience. I know the difficulty which I have experienced more than once in endeavouring to bring down the head through an undilated cervix, which has tightly grasped the fœtus round the neck, and I have no hesitation in saying I prefer the forceps to version under such circumstances as those. I think it ought not to be forgotten that in a certain number of these cases we are obliged to use forceps simply because the brim is slightly contracted. In many cases a slight contraction of brim is not distinguishable by an ordinary digital examination, nor can you make it out unless you pass the whole hand into the vagina. In those cases the os never fully dilates, the head never comes down fully on the os, and I am perfectly satisfied in a certain proportion of cases in which these forceps are applied before the os is fully dilated that non-dilatation is due to imperfect contraction of the uterus. With your permission—and perhaps practice is more important than precept—I will read the details of two or three cases which have come under my care during the last year. They are taken from the report of the Rotunda Hospital, which has not yet been published, and will, I think, throw some light on the treatment of such cases as those which we are at present considering: — "CASE 1. E. C——, aged twenty-three, was admitted into hospital at 3 A.M. on May 11th, having been about twenty hours in labour under the care of a midwife. The membranes had ruptured the previous day, and the patient seemed much exhausted from protracted efforts at 'bearing down.' The os was about half dilated, and very rigid; a large scalp tumour could be felt on the fœtal head; the vagina was hot and dry. Warm baths, chloral, and opium were tried repeatedly during the day. At 10 P.M., the patient having been chloroformed, the forceps were applied; os three-fourths dilated. The cervix offered considerable resistance, and some blood flowed with the first efforts at traction. A small thrombus formed at the posterior fourchette as the head was coming down upon the perineum. Two incisions were made laterally in the perineum to avoid the danger of laceration. The child was still-born. Convalescence was uninterrupted, and the patient went out on the eighth day." "CASE 2. A. D——, aged twenty-six, unmarried. Labour commenced on May 15th; the waters were discharged the same day. Came into hospital on the 16th, having been twelve hours in labour. The os was found to be the size of a shilling, and very rigid. All the ordinary means of relaxing it were employed, but with very little effect. At midnight on the 17th (third day since escape of liquor amnii) the os was about the size of a florin, still very rigid; the vagina hot; tongue coated; pulse rapid, and the patient in great distress of mind. Chloroform was administered, and she was kept under its influence for twelve hours. At noon the following day (18th) the forceps were applied and locked. No traction was applied for half an hour afterwards, as it was hoped the excentric pressure of the blades would expand the cervix sufficiently for the passage of the head. In fifteen minutes more it was drawn through the cervix, and was soon delivered without further difficulty. The entire time which elapsed from the application of the instruments until the birth of the child was fifty-five minutes. The child was born alive, and lived for thirty-six hours afterwards. 19th, 7 P.M.: Patient has suddenly become deeply jaundiced, groaning and complaining of general distress, but no pain; respiration rapid; lochia suppressed; no milk. The perineal laceration, which extends half way to the anus, is destitute of granulations and covered with a white membrane; the edges red and œdematous, and the discharge thin and irritating, excoriating the inner side of the thighs; labia œdematous. 10 P.M.: Vomiting green matter; semi-comatose, with retention of urine. 20th: Comatose; breathing quieter; pulse 110. 21st: Profuse black vomiting, several pints of fluid being ejected. Coma very profound, with stertorous breathing. Death on third day. The autopsy revealed arborescent injection of the peritoneum, with deposit of recent lymph, rupture of cervix uteri extending to peritoneum, diphtheritic membrane on internal surface of uterus, and adhesion of left pleura." That is the only case, I should say, in which I have ever had rupture of the cervix from the use of the forceps, and I think it clearly proves it is a danger which is not to be forgotten. "CASE 3. T. O'N——, aged nineteen, a primipara. Labour commenced about 4 P.M. on June 8th; she did not, however, come into hospital until noon the next day. 9th: On admission the os was found to be about the size of a sixpenny bit, and the head could be felt through it, the waters having previously escaped. Her pains were apparently very severe, but had not much effect on the os, which felt hard and rigid; she passed a very restless night, in spite of an anodyne draught. 10th: Os was about the size of a florin, still hard and undilatable. The day and night were spent very much as those preceding had been. On the morning of the 11th, very little progress having been made, chloroform was administered and the forceps adjusted and locked, but so firmly and rigidly did the cervix surround the blades that it was not thought safe to employ traction, and they were accordingly removed; chloroform was withdrawn. The patient was again placed in a warm bath, the water of which was injected into the vagina. After a time matters assumed a more favourable aspect, the cervix softened and began to dilate, about 6 P.M. it was retracted over the head, and the child was shortly afterwards expelled alive by the natural efforts." These cases are to me excedingly interesting and instructive, especially the last. It was the only occasion I can remember in which, after applying the forceps, I did not complete delivery; but I felt amply rewarded by the satisfactory termination of the case. It is very well worth bearing in mind that that patient's child was born alive, in contradistinction to the first of the cases, in which the child was dead after the use of the forceps. In conclusion, I have to say our practice is this:—We use the forceps freely when the head is low and the os fully dilated. We use the forceps when the os is not fully dilated, but with the greatest possible hesitation, and with a full conviction that such a practice is not absolutely safe. I may add, I do not think that much infantile life is saved by the use of the forceps before the os is fully dilated. Children are born alive to live for a few hours, but the great majority in my experience die within a few hours after protracted efforts to extricate them. Of course I am now alluding to those cases in which there is some difficulty of extraction, not to those of which I have already spoken, in which the os is so soft and so nearly dilated that to speak of it as not being dilated is really, perhaps, erroneous.

(To be continued.)

THE will of Dr. Charles Murchison has been proved under £50,000.

THE DEATH-RATE OF DUBLIN.—During the week ending 31st May the deaths registered in the Dublin registration district represented an annual mortality of 51·5 in every 1000 of the population. This high death-rate is attributed by the Registrar-General to the circumstance that 137 deaths of persons interred in the several Dublin cemeteries during the first four months of this year were not registered until that week.

Reviews and Notices of Books.

Typhoid Fever: its Causes and Extent in Melbourne. By WILLIAM THOMSON, F.R.C.S. Ed. Melbourne: George Robertson. 1878. [FIRST NOTICE.]

IN Australia, as in the mother country, grave doubts still surround the origin and progress of typhoid fever, and excite an ever-increasing interest. It may be said shortly of this report that it attempts to show that the disease is strictly contagious, and is never propagated except by germs generated in the bodies of those suffering from it. We are by no means satisfied that Mr. Thomson has proved his case, but he has furnished us with a mass of evidence bearing on the whole subject, which may be studied with great advantage by all pathologists and clinicians.

The author endeavours to establish the following statements:—That typhoid fever is the common fatal fever in Australia; that it prevails there more than in England; that it tends to increase; that it is an imported disease; that attention to so-called pythogenic sources do not check its extension; and that the sanitary authorities have made no real effort to destroy the contagia which excite the disease. It is clear that, with such a list of statements to prove, a report must be greatly argumentative, and that most cases narrated must yield to the non-contagionist certain evidence in favour of his views. Mr. Thomson, as we have said, has not established his case, and he need not be disappointed at this, for his contribution to our knowledge of the origin and extension of typhoid is none the less valuable on that account.

That typhoid is a disease which can be imported no one will deny; but many will dispute the methods of importation—a subject to which we shall have occasion to refer. Nor can there be any question in our minds, after studying this report, that the prevailing fever in Australia is typhoid, and that it commits greater ravages there than in England; but we cannot consider the whole question of contagion as settled. One statement of Mr. Thomson's is of vast importance, for it denies that drainage has the least influence on the origin of the disease, and that improvements in drainage do not check it. His case is this, that nothing will check the extension of the disease except destruction of the germs immediately after passing from the body of a patient. No one will dispute that such a practice should be pursued; but it does not follow that drainage has no influence on the germs, nor has it been disproved that these have not sometimes a *de novo* origin—a theory against which Mr. Thomson directs his chief attack. On the other hand, it is absolutely certain that drainage does influence epidemics—that improvement in drainage is invariably followed by diminution of typhoid. Putting aside spontaneous origin altogether, it is clear to our view that germs thrown off by persons suffering from the disease would be got rid of more quickly by good than by bad drainage; and we have no doubt that the Australian local boards, who are charged with neglect of sanitary precautions, looked at the whole matter as a question of the powers of removal which a sluggish ditch and a rapid stream possess, and then urged improvement in the drainage of various places. No matter what may be the true explanation of the origin of typhoid, we insist that the disease is associated in many ways—possibly obscure—with dirt, and we cannot afford to laugh at those who think and speak of it as a dirt-bred disease. No one denies nowadays that typhoid fever patients can propagate typhoid poison, and excite the disease in others; but here again opinions will differ as to the exact nature of the contagious power of the disease. Is it possible to contract the disease at the bedside of a typhoid patient? Most physicians would reply that such an occurrence is rare, and, using the term "contagious" in its limited sense, would deny that typhoid fever is contagious. But if the same gentlemen were asked, "Can a sufferer from typhoid throw off a poison in his excreta which may find its way into the food or drink of another, and start a similar disease in him?" they would reply almost universally in the affirmative. A very much more difficult problem has been submitted to themselves by many clinicians. They have, for example, seen cases of this kind: A person has waited on a typhoid patient and not suffered from the disease—a nurse whose duty it has been to remove all excreta; another individual, not in immediate contact with the sufferer, has used the same closet as the latter and been attacked. It is clear that a multitude of difficulties present themselves in such cases, which are far from uncommon. A typhoid patient can propagate his disease; is it necessary that the poison he throws off should find a nidus for its development before it can infect other individuals? This difficulty has not been solved, and no negative answer based on facts has ever yet been given. Here we reach at once the truth that drainage properly carried out is of possible value in protecting communities against typhoid, no matter whether the poison occasionally arises *de novo* or invariably descends from individuals suffering from the disease. Mr. Thomson is entirely contagionist in his views, and his report might persuade the ordinary mind that drainage is valueless against typhoid. Such persuasion is dangerous. While the least doubt remains of the possible sources of extension of an acute specific disease, it is clearly the duty of the physician to treat them with precautions given to known causes.

There are many valuable facts in this report, and many evidences of thoughtful attempts to explain the nature of contagious diseases. Typhoid fever would appear to be above all others, except small-pox, the most preventable of diseases, and all labour in the accumulation of facts and in their philosophical study must result in the welfare of communities and nations. It prevails to an alarming extent in England as well as in Australia, and its name is legion. It is met with in Protean shapes, and is therefore known by many designations—low fever, gastric fever, simple continued fever, febricula, febrile dyspepsia, intestinal catarrh with fever, intestinal hæmorrhage, and a host of other terms which in themselves are sufficient to indicate its frequent obscurity. Typhoid fever is one of those diseases which have called on nomenclature to cloak our ignorance of their nature. Sometimes an imperfect knowledge groups various diseases under one name, at others it makes the opposite mistake; and though we do not hesitate to say that the latter error has occurred over and over again in regard to typhoid, we are by no means certain that errors have not been made in the former direction. The fact is that we know a great deal about typhoid fever, but there will be a time, not far distant, when our views as to its origin and history will be very greatly modified. Our present state of knowledge warns us against hasty assertions, and advises cautious inquiry and reasoning. We must have the surest foundations before we come to conclusions as to the origin and modes of extension of this disease, which can present itself under such a variety of aspects.

The Journal of Physiology. Edited by MICHAEL FOSTER, M.D., F.R.S. Vol. II., No. 1. May, 1879. Macmillan.

THIS number contains eight original articles, besides a good bibliography of works recently published. The first is by B. F. Lautenbach, of Geneva, on the Physiological Action of Heat, who shows that the movements in the muscles that follow the application of heat to the motor nerves are due, in the first place, to its action as a simple irritant, and, secondly, to its destructive effects. In a second article the same author suggests the application of the

glucoside, saponin, as a novel means of determining the presence of sensory nerves. The injection of this substance causes a rise in blood-pressure, but if a section of the pons be made no rise is observed, and from this and other considerations he concludes that there are sensory nerves in the brain, which are excited by saponin.

Charles Roy describes a new Microtome. Professor Martin, of the Johns Hopkins University, and Mr. Hartwell, discuss the Respiratory Function of the Internal Intercostal Muscles, and arrive at the conclusion that they are *expiratory*, coming into play with the occurrence of very slight dyspnœa. Mr. Chittenden gives the results of his inquiries into the formation of hypoxanthin, and finds that it may be obtained from blood-fibrine by boiling for twelve or fourteen hours with water, or by the action of 0·2 per cent. solution of hydrochloric acid, or of gastric and pancreatic juice, though the last-named agent alone causes its appearance in the case of egg albumen. Mr. Nettleship makes some remarks on the Visual Purple in the Human Eye. On this paper follows a contribution by Isaac Ott on the Physiology of the Spinal Cord, especially bearing on its relation to secretory functions, to the vaso-dilator centres, to rhythmical functions, to the genito-urinary functions, and, lastly, in regard to the path of the secretory and inhibitory fibres. Dr. Roy discusses the form of the Pulse-wave as studied in the Carotid of the Rabbit. Dr. Garland describes certain movements of the upper part of the pharynx which are connected with the act of respiration in dogs. Five plates accompany this part.

Analytical Records.

NITRO-GLYCERINE PILLS AND TABLETS.

(MR. MARTINDALE, NEW CAVENDISH-STREET.)

A DIFFICULTY having been experienced in obtaining a convenient and readily portable preparation of nitro-glycerine for angina pectoris patients, Mr. Martindale has recently turned his attention to the subject, and has succeeded in making it into pills. The pills, of which we have received samples, are of two strengths, one-fiftieth and one-hundreth of a grain. They are coated with a thin transparent film of varnish, which helps to preserve them without diminishing their activity. When swallowed whole little or no effect is produced, but if broken up in the mouth they at once melt, and are absorbed, producing the full physiological action of the drug. They have a sweet, almost pleasant taste, and are by no means disagreeable to take. For those who object to pills, Mr. Martindale combines his nitro-glycerine with chocolate paste to form lozenges, or, as he prefers calling them, "tablets." These tablets are of three different sizes, corresponding to one, two, and three drops of the one per cent. alcoholic solution. They are attractive in appearance, and could not be distinguished by the taste alone from ordinary chocolate creams. It is said they will keep well, and may be carried in the coat pocket with perfect safety, and without fear of their sticking together. We can answer for their activity, one of the smallest allowed to melt in the mouth producing a pulsating headache, which lasted for nearly an hour. Patients vary much in their susceptibility to the action of this drug, and with many delicate women half a lozenge would be found to be a full dose.

PEPTOLEINE.

(BURGOYNE, BURBIDGES, & CO., 16, COLEMAN-STREET.)

This preparation—intended for use in consumption and other wasting diseases, and introduced by Dr. Peter Cowan—is the more worthy of praise because it lays no claim to secrecy. It is described as fine cod-liver oil, emulsified by phosphate of soda and gum acacia, and aromatised by Peruvian balsam; and the description appears perfectly accurate. The emulsion has wonderfully little of the unpleasant taste of even the best oil, and, in our experience, leaves but little after-taste. Few patients would find any difficulty in taking it; and it will easily be understood that each of the additions made to the oil has some therapeutic value. Peptoleine can hardly fail to be popular.

SPOROKTON (TUSON'S PATENT): A DISINFECTANT, DEODORISER, AND ANTISEPTIC.

(SUTTON AND PHILLIPS, STOWMARKET, SUFFOLK.)

These preparations—for several varieties of the "germ-killer" have been submitted to us—possess such real originality, and involve such interesting scientific applications, that we have examined them with considerable care, and are glad to find that they deserve hearty praise.

The first (liquid No. 1) is a solution in which, by an ingenious contrivance, no less than eighty volumes of sulphurous acid gas are dissolved, so that each pint contains ten gallons of the gas. The non-volatile portion contains chloride of zinc. Among all known disinfectants and antiseptics none are superior, scarcely any, indeed, are equal to these, and the idea of combining them in so convenient and cheap a form is an excellent one. The only objections that can be made to the use of sulphurous acid in many cases are the difficulty and danger attendant upon its application, and these objections appear to be completely obviated by this solution.

Liquid No. 2 is similar to No. 1, but cheaper, and liable to stain fabrics. For many purposes it will, however, be sufficient.

The third form of sporokton is a solid, in which we find iron and an alkaline sulphite. Even when exposed to the air, and very rapidly when moistened with water, it gives off sulphurous acid to the extent of no less than 25 per cent. of its weight.

It is evident that sporokton deserves its title, and that in one form or other it is likely to be a valuable, as well as a cheap and convenient, agent in sanitation.

CALISAYINE COCKTAIL BITTERS.

(YEATMAN & CO., 119, NEW BOND-STREET.)

This new rival to the now familiar Angostura bitters is a powerfully aromatic and agreeable tonic. It is founded, of course, on the well-known Calisaya bark, but is artfully compounded. Many receipts for its use are given, and those that we have tried certainly yielded pleasant drinks. Whether the flavour will be generally popular is more than we can venture to predict.

FRESH BAEL FRUIT.

(MESSRS. YOUNG & POSTANS, BAKER-STREET.)

The Fresh Bael Fruit, as our readers know, is prescribed frequently for acute dysentery in the East Indies, and sometimes with fairly successful results. Dr. James M. Laing, of the Indian Colonial Service, thinks it worthy of a trial in England for summer diarrhœa, and we willingly endorse the opinion, if the fruit can be obtained in as fresh and palatable a condition as the sample now before us.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—On Whit Monday the following were elected office-bearers of the College for the ensuing year:—President: Edward D. Mapother. Vice-President: Alfred H. McClintock. Secretary: William Colles. Council: John K. Barton, Edward George Brunker, Samuel Chaplain, William Colles, John Denham, William A. Elliott, Edward Hamilton, Archibald H. Jacob, George H. Kidd, Rawdon Macnamara, Robert M'Donnell, Benjamin G. M'Dowell, George H. Porter, Philip Smyly, W. T. Stoker, William Stokes, Henry R. Swanzy, T. Jolliffe Tufnell, W. J. Wheeler. One hundred and thirteen fellows voted, four voting papers being disqualified.

THE LANCET.

LONDON: SATURDAY, JUNE 14, 1879.

THERE have been few truer things said in the discussions on medical reform now proceeding, and which have been going on for the last ten years, than that which was said by Mr. SIMON at the recent meeting of the General Medical Council. Mr. SIMON said there was a great schism in the profession. Like a real medical statesman, which he is, he expressed a wish to see the schism healed. It would be very satisfactory to see indications that the corporations themselves, as well as the president of one of the chief of them, have the same perception as he of the existence of a great schism in the body medical, and the same great wish to see it removed. There can be no doubt that the schism exists, and that it has been deepened by the miserably inadequate way in which the Medical Council has conceived of its functions and of its relation to the profession. In a schism there are, of course, two sides. In this particular instance the two sides are defined with great clearness. On the one side are the Medical Council and the medical corporations—that is to say, the men in actual office in these bodies. There is another element on this side—that is, the men that hope to be in office soon, or some day—prospective presidents and members of Council, or of Court. Such expectants make almost as bad reformers as the men in actual possession. On the other side are the great bulk of the medical profession—nine men out of ten, or ninety-nine out of one hundred. Now, it would be foolish to disparage the gentlemen who hold office in the medical corporations. There are a few feeble, weak-kneed, pale-brained brethren amongst them, it must be admitted—men who owe their position to their age or their good luck rather than to their ability. But of the bulk of them all that need be said is that they are the real heads of the profession—men who lead their brethren in the science and in the art of medicine. Such are the two sides in this schism. The polemical positions are as clearly defined as the parties. The members of the Medical Council and of the medical corporations which predominantly make up the Council are averse from change. The existing Medical Council is the best Medical Council that can be devised, and its work has been the perfection of beauty and completeness. Introduce general practitioners into the Council, and you would destroy its dignity and its efficiency at a stroke. The existing number of nineteen bodies is a divine arrangement. Reduce it to sixteen or to ten, and "the most ancient heavens" would fall. Can anything be more admirable than the corporations representing the beginnings and the growth of the professional sentiment, beginning at Blackfriars, rising to Lincoln's-inn, and culminating in Pall Mall—apothecary, surgeon, physician!—

"The force of Nature can no further go";

and so *mutatis mutandis* in the different divisions of the kingdom.

As with the institutions, so with all their stereotyped arrangements, the number of lectures required, the amount of fees demanded, the time and number of the examinations—they are all incapable of improvement. They represent the wisdom of past ages, and should be imported, with all the taxes they involve, into the ages to come. On the other side, and the outside, waits the great profession of Britain, belauded by its leaders, but mistrusted and almost despised, kept out of the corporations which it maintains, and out of the Medical Council, whose affluent funds it supplies. One of the leaders of the corporations has suggested that the great universities, not to mention the corporations, might refuse to submit to the control of a Council some of whose members were elected by the general vote of the profession. It is language like this that astounds us—from men representing corporations that have no glory if not the glory of representing the profession. It is not the threat contained in it, but the contempt of the general judgment of the profession, which strikes us. The tone of mingled servility to the "great universities," which, by the way, have rendered such wonderful service to medicine in England, coupled with that of disdain for the medical profession, as one that can be wire-pulled, is what concerns us, and the profession. What wonder is it if the public should treat the profession with scant respect when its own leaders think so lightly of it; or what wonder that there should be so little respect for the Council and its corporations when they so lightly esteem the profession for whose education and culture they are chiefly responsible. It is not on the language of one man, however, that we found such charges against the Council and the corporations. We found it on the ground of the whole bearing of the Council to the profession, and its repeated and determined refusal to have any members at its board representative of the general body of practitioners. Such dread and reluctance on the Council's part would have been more excusable if the Council did not exist to regulate the education and the supply of general practitioners. Surely the ranks of general practice include half a dozen men whose experience and opinion—however elected—would not lower the reputation of the Council or of its discussions.

It rests very much with the Medical Council and the corporations to say whether this schism between them and the profession shall now cease. It will be simply pitiable if the narrow, unsympathetic, and exclusive spirit shown hitherto to the profession by the Council should find fresh expression before the Select Committee. The profession will have high ground to maintain. It will take all the unanimity and all the mutual respect of its different classes that can be commanded to prevent the enemies of the profession taking occasion to disparage it and to abolish the scanty privileges of its members. It is a crisis in the history of the profession, which calls for the *esprit de corps*, as distinguished from the *esprit de corporations*, for magnanimity and statesmanship. If the Council and the corporations are wise and well-advised, they will reconsider their bearing towards the profession, and will, at some apparent self-sacrifice, make the Select Committee an occasion for ending the schism in the medical body, to the great advantage of the Council and the just satisfaction of the profession.

THAT the secretion of sweat is under the control of the nervous system has been recognised for some years past, LUCHSINGER and others having demonstrated that a copious discharge of this secretion can be induced in the feet of the cat and dog by stimulation of the sciatic and brachial nerves. That it is essentially independent of any changes in the circulatory system is shown by the fact that it can be made to occur in an amputated member, and in limbs the temperature of which is below the normal. The secretion is thus shown not to be a mere transudation, but the result of the activity of special glandular cells, called forth, as in the case of the salivary glands, by the stimulation of certain nerves. The sudoriparous nerves, running in the sciatic nerve, are derived from the abdominal cord of the sympathetic; for if this be divided, and the lower extremity be stimulated, perspiration breaks out on the hind foot, though if the sciatic be first divided, no such secretion is observed. After division of the sympathetic in the abdomen on one side, the animal no longer sweats on that side when exposed to heat. But the fibres do not arise in the great sympathetic; they appear to emerge from the spinal cord by the rami communicantes of the first four lumbar roots, and the last two or three dorsal. Sweating can be induced by reflex action, and also in a very marked and singular manner by jaborandi, and by the active principle of that drug—pilocarpin. In from three to five minutes after the subcutaneous injection of a solution of hydrochlorate of pilocarpin, in man, the flow of saliva increases, perspiration appears, first on the head, and then gradually over the whole body, and lasts about an hour, or, if the patient be in bed, for two or even three hours. This effect LUCHSINGER considers to be due to the pilocarpin acting as a direct stimulant to the nerve-centres. He tied the abdominal aorta in a cat, and then injected pilocarpin into a vein. Under these conditions the pilocarpin was unable to reach the glands in the posterior extremities, and thus to act as a direct stimulant; nevertheless the feet were soon bathed in sweat. Atropin inhibits the secretion of sweat, for if, after the injection of one one-hundredth of a gramme of pilocarpin, three one-thousandths of a gramme of atropin be injected, the commencing perspiration is arrested in about ten minutes. If now a hundredth of a grain of pilocarpin be injected into one of the feet, beads of sweat burst forth on this foot; but the rest of the body, being still under the influence of atropin, remains dry. The experiments of LUCHSINGER have been repeated and confirmed by NAWROCKI, who satisfied himself that there is a common centre in the medulla for the secretion of sweat in both fore and hind feet. He followed the course of the fibres innervating the glands of the fore limb, and ascertained by means of sections at different points that they leave the spinal cord between the third and fifth cervical vertebræ. These fibres enter the brachial plexus with the thoracic portion of the sympathetic, and are occasionally confined within the sheath of the median nerve, though more frequently they are distributed between the median and ulnar nerves, the median having the larger share. ADAMKIEWICZ, in a more recent publication, finds, like his predecessors, that the secretion of sweat is independent of the circulation, and that it may be induced by artificial or voluntary stimulation of the muscles, or of their nerves, by mental stimuli, as by the imagination; and, lastly, as a reflex act by stimuli applied to the skin. In man the secretion is always bilateral and symmetrical, and is not necessarily eliminated in the immediate vicinity of the point stimulated. Heat excites it, and, indeed, the activity of the secretion seems to stand in direct relation with the temperature of the several parts of the body. His views differ from those of LUCHSINGER in regard to the nervous apparatus, for he believes that the motor centre of the secretion is situated on the surface of the brain. The nerves pass through the medulla to the spinal cord, and unite at the secretory centres, which are probably placed in the anterior horns of the grey matter. From these horns secretory fibres emanate and leave the cord in connexion with motor nerves, whilst others enter the sympathetic at higher points of the cord. VULPIAN, in following out these experiments, found that although some of the excito-sudoral fibres may, in the cat, pass from the sympathetic to the sciatic nerve, yet that there are others in considerable number which pass directly from the spinal cord by the seventh lumbar and first sacral—that is to say, by the roots of the sciatic itself. VULPIAN points out that an interesting parallel may thus be drawn between the nervous mechanism of the sweat-glands and that of the salivary glands; for it is known that the submaxillary glands receive excito-salivary fibres from the chorda tympani, and other fibres from the cervical portion of the great sympathetic. He is, however, unable to coincide in the view that the filaments for the sweat-glands in the foot and forelimb of the cat pass out from the cord *entirely* with the spinal roots of the superior thoracic ganglion. A large part no doubt do so, but others accompany the roots of the spinal nerves entering into the formation of the brachial plexus. LUCHSINGER and TRUEMPY have quite recently investigated the chemical properties of sweat. An acid reaction is generally attributed to this secretion, but these observers have ascertained that in man as well as in the cat the reaction is really alkaline, and that the acidity which has been observed is due to the fact that the secretion of the sebaceous glands is ordinarily acid, or rather becomes so in the act of decomposition, to which it is prone. The whole subject has been well analysed and treated by M. BLANCHARD in the *Progrès Médical*.

IT must be a subject for much congratulation among those who have been watching with anxious interest the progress made by the medical officers of health created by the legislation of 1872, to find the difficulties they have to contend with in the performance of their duties are being slowly but surely overcome, and that they themselves are obtaining the mastery of the complicated functions attaching to their office. This is the general conclusion, we take it, that may justly be drawn from their recent annual reports; and if these reports do not all equally tend to this pleasant view of matters, at least they show that the shortcomings which are indicated by them are shortcomings for which the medical officer of health has no responsibility, and are the necessary results of that perverse policy under which the administration of the Public Health Act was initiated. It has not been given to every medical officer of health either to have the power or the opportunity of successfully making headway against the impediments which the Local

Government Board at the beginning, in the mere bravado of departmental ignorance and prejudice, heaped in his way. These impediments, and not the difficulties arising from the indisposition of sanitary authorities to move in sanitary matters, have hitherto been the chief obstacles to progress in sanitary administration under the new public health law. True, better teachings are now exercising some influence in Whitehall with the central sanitary authorities, but many years will have to elapse, and probably fresh legislation touching the central authority itself will have to take place, before the artificial hindrances deliberately created by it in the beginning shall no longer prove an obstacle to local sanitary administration, and especially to the work of the medical officer of health.

But from the reports of the medical officers of health we are justified in coming to the conclusion that these officers over large areas of the kingdom have fairly overcome the artificially-created difficulties referred to, and are beginning to exercise a due influence over their local authorities. The reports of these officers now form a body of hygienic literature remarkable—we may say, perhaps, unrivalled—of its sort. This literature presents, moreover, this paradoxical feature, that in proportion as it augments in excellence it loses its general interest and becomes more and more of purely local value. This is not difficult to understand. When the medical officers of health under the Public Health Act were first appointed, their reports dealt with the general conditions of their districts; and in elucidating the topographical and social sanitary conditions under which the several populations lived, they touched on questions of general bearing relating to the states of life and health of the varied populations throughout the kingdom. As the years have gone by and the more intimate local conditions of the people have been worked out, and these have become matters of current daily observation, the reports have necessarily become of increasing local moment, to be understood and properly followed out only in the localities to which the reports refer. In other words, the perfection to be aimed at by the medical officer of health is the detailed knowledge of the health conditions of the several homes and families in his district, taking the house as the limit of sanitary work, and in proportion as he attains this knowledge and reports upon it, his reporting will have an interest limited mainly to his particular district. Hence it comes to pass that the truest test of a medical officer of health's work, as indicated by his reports, is its purely local interest. Or, to put the matter in another form, the reports, as a rule, lose in general interest as they gain in local value.

We have been compelled to this paradoxical train of thought by the annual reports for 1878 now heaped and continually increasing upon our table. A considerable number are marked by the most conscientious and painstaking account of the vital statistics and sanitary requirements of the districts to which they refer, such as places the local sanitary authorities in the most favourable position for exercising the powers entrusted to them under the Public Health Act of 1875, but presents little of salient interest that would arrest the attention of the outsider. Thus it happens that by the very excellence of a large proportion of these reports for their proper object, they are thrown, as it were, outside the field of special editorial comments, where space is not unlimited and type has not yet become elastic. Our own difficulties in these respects arise, indeed, from a cause which gives us the best hope of the future of the medical officer of health in the sanitary administration of the kingdom.

DEATH has been terribly busy in our midst of late years, and many of the best and bravest of our fellows have fallen, stricken down by the enemy, while fighting strenuously in the army arrayed against disease. A sublime mystery of patience and manly self-possession, which it were unjust and short-sighted towards ourselves, and to the public, to pass over in silence, has surrounded the lives of some of the most widely-known of those who have, recently, been taken from among us. CHARLES MURCHISON and WILLIAM TILBURY FOX were typical examples of that probably large class of practitioners engaged in the ministry of health, who go about their daily duties with the ever-present consciousness that they are themselves victims of mortal and ceaselessly threatening disease. The heartfelt sympathy of every humane physician must follow the patient who leaves his consulting-room with a prognosis that may cloud the future, and bring home to his mind the dread uncertainty of life; but what blight can fall on the consciousness of the layman, what withering hope be felt within the mind that only partly realises its danger, to be compared with that which crushes the spirit, and renders the heart faint in the breast of the well-instructed and experienced pathologist, who from the moment he hears from the lips of a trusted friend, or by his personal skill discovers, the truth about his condition, foreknows his own doom. The presage is keenly far-reaching, and it will not be shaken off. Hope may revive, and time blunt, or even efface, the impression produced by a portentous opinion on the case of an ordinary patient. There is always the possibility that the medical adviser may have misapprehended the actual condition, or meant less than he said or seemed to say. A lay patient seldom knows the full extent of his peril, and what he does know may be forgotten in the diverting interests of life. It is well that it should be so, or this world of ours would be a sad and heart-rending scene, with scant incentives to cheerfulness, and little to give life a zest, or permit the multitude of death-stricken and actually dying persons we see around us to make merry on the brink of the grave. There is something full of melancholy to the reflective mind in the spectacle of a crowd struggling and toiling to wrest pleasure from the passing hour by forgetfulness of the fate that hovers over them, and is perchance at that instant, like the weirds in the Saxon mythology, weaving the spell, and preparing to waft them away from the scene of their heedless enjoyment, such as it is, or at the best can be. Meanwhile, the physician or surgeon who, in his own person, consciously bears about with him the poignard that shall put a period to his existence, ever feels its sharp point at his heart, knows when and how it will strike him, is acutely alive, perhaps morbidly sensitive, to every change in his condition, and sees the shadow of death thrown distinctly across *his* path by each gleam of the sunshine so joyous to those around him. The man who, being thus haunted, is not, through fear of death all his lifetime subject to

bondage, must have that within him which surpasses mere human strength, or be steeped in a Lethe of forgetfulness which it is hard to realise, and impossible to understand.

Of those who have just passed away, the two we have mentioned were men of wholly different mental characters, but they were agreed in being able to face the ever-impending prospect of sudden death with composure, and to endure the persistent sense of a darkening horizon not only with fortitude, but undaunted interest in the cause of mortality which threatened them. Neither sought to escape from the perpetual reminders of disease and death which a professional career entails, and each tranquilly contemplated his end and took such measures as prudence and affection dictated to prepare for instant removal from a cherished home circle and a busy life. There is heroism in all this which deserves to be chronicled, not for the glorifying of the departed, but the encouragement of those who remain. The heart knoweth its own bitterness, but when a man with the heaviest of burdens—a blighting sorrow buried in his bosom—preserves a calm and even cheery exterior, and goes about his appointed work valiantly and earnestly, as though he did not know that he was destined to be called away before the fruit would be ripe for his own enjoyment; when, in fact, he labours and toils for others and the world he is expecting to leave suddenly, his self-possession is an example to those who, though not less *certainly* mortal, are not so constantly beset with the apprehension of death, and yet cloud their own lives and mar the happiness of all around them by morbid misgivings and distressing fears of the diseases that may affect, and the fate that sooner or later must inevitably overtake them. The selfishly conscious and apprehensive, ever engrossed with their own real or conjectured sources of uneasiness about health and life, may profit by reflection on the careers of enterprise and usefulness which have been too early and—if it were not presumptuous to criticise the workings of an inscrutable Providence, we might think—untimely interrupted. What can we say, what is it permissible to believe, concerning the unfinished lives of busy and able workers in science thus removed in the height of their enterprise? We know the treasures of knowledge acquired by such men are not lost, and the formative, educational, or evolutionary influence they exert on mind, as an element of humanity capable of progressive development, is persistent; but their own share of the fruits of labour—what becomes of that? Why are they deprived of their reward? Questions like these *will* rise unbidden in the mind; and, in days of narrow-minded and short-sighted materialism, when scientists seem to exult in destroying the fond hope of immortality, while they have nothing to offer in the stead of this aspiration; when there is a growing disposition to scoff at all that lies beyond the horizon of sense, or outside Nature, and it is counted a triumph of intellect to believe in nothing which cannot be demonstrated by the puny appliances and processes science has already discovered—it is unwise to rebuke these questionings of the inner soul of man, a veritable entity, albeit the principle we *feel* within is not to be laid bare by the scalpel of the anatomist, or brought under the physiologist's ken. In the name of science and humanity, let us have more of this spirit of hope and purpose and confidence in the Future, for it enables men to bear the ills of life placidly, to do its work honestly and earnestly; it cheers the spirit in life, and helps it to gaze calmly on the dread visage of Death, and to meet him even cheerfully in the hour of his triumph and human humiliation, though not final disgrace.

Annotations.

"Ne quid nimis."

THE ORDER OF ST. KATHERINE.

THE chorus of approval with which the daily papers greeted the establishment of this new Order of St. Katherine has one value: it shows that the efforts which have been made to put nursing on a higher standing have been not altogether unsuccessful, and that well-trained nurses are recognised as worthy not only of gratitude, but even of marked reward, at the hands of the Sovereign. But we cannot help expressing our surprise that the first intimation the profession or the public received of Her Majesty's intention was the account of the installation of the nurses at the Westminster Hospital. And this secrecy is the more to be regretted as the scheme bears evident signs of the working of a prentice hand. We welcome as warmly as any the recognition of the services of the nurses, but it is necessary to remember that nurses are, after all, only servants of the medical profession; their office is the faithful and skilful execution of orders, and, therefore, it is to medical men primarily that individual nurses stand or fall, and by them that they are to be best judged. Any rewards to be given to good nurses ought, therefore, to come through the profession, and not through matrons or heads of nursing institutions; and it must be borne in mind that the qualities which commend a nurse to these last are often by no means the highest that the profession seek, and would desire to have rewarded. Sir Rutherford Alcock, on the other hand, at the ceremony at the Westminster Hospital, took especial pains to insist that the matron could alone decide which out of the many good nurses in any institution were most deserving of this decoration, and that the selection which he then announced had been made by such functionary. Nor is the manner in which the money is given any more satisfactory; it savours of a three-years' travelling fellowship, and rewards a nurse at the end of three years' work, rather than helping her when unable to support herself by the discharge of her customary duties. And we approve still less of endowing the institutions from which the St. Katherine's nurses are chosen with any of the money to be thus given for the encouragement of nursing. Everyone who has had any experience in the actual working of these institutions is aware that the training of the nurses in them is conducted in hospitals, and that the young nurses learn of their seniors and of the medical officers of the charities. It is therefore to the hospitals which trained these nurses, and not to the home or other institution with which they are connected, that such recognition of good work done should be made. This is not only a matter of right. These nursing homes are good commercial undertakings; they are not charities—certainly not poverty-stricken. Hospitals are charities, and in want of money; and it would be a pleasant change to see some of the accumulated wealth of old St. Katherine's Hospital once more flowing in such a channel. Then, again, we are tempted to ask whether the selection of these St. Katherine's nurses has been made well—even at first. Can it be in any way fair that three of them should be chosen from one of the smaller of our metropolitan hospitals? As far as the secrets have leaked out, six out of ten are to be distributed amongst the nurses of three hospitals. This bears the stamp of so

many other acts of patronage. We are glad to know that the plan is to be tried on its present footing for one year only; we are confident it will not live longer; and we hope that by recognising the true character of nurses, and how they receive their training, greater success may attend the more mature efforts of the devisers of the scheme.

THE UNITED STATES NATIONAL BOARD OF HEALTH.

THE National Board of Health of the United States has already been formed, and entered vigorously upon its functions, first having framed bye-laws and rules for its procedure, and appointed standing committees on the several subjects of rules and interpretation of the constituting Act, finance and accounts, epidemic and contagious diseases, adulteration and deterioration of food and drugs, registration and vital statistics, State and municipal and local sanitary legislation, and diseases of domestic animals. The following gentlemen constitute the Board: James L. Cabell, M.D., LL.D. (University of Virginia), President; John J. Billings, M.D., U.S.A., Vice-President (Washington); Thomas J. Turner, Medical Director, United States Navy, Secretary; Preston H. Bailhache, M.D., U.S. Marine Hospital Service (Baltimore); Sam. M. Bemiss, M.D. (New Orleans), Henry I. Bowditch, M.D. (Boston, Mass.), Hosmer A. Johnson, M.D. (Chicago), Robert W. Mitchell, M.D. (Memphis, Tenn.), Samuel F. Phillips, Solicitor-General (Washington), Stephen Smith, M.D. (New York), Tullio S. Verdi, M.D. (Washington). The Executive Committee of the Board consists of Drs. Cabell, John S. Billings, T. J. Turner, Stephen Smith, and Preston H. Bailhache. The Board has had under consideration the question of disinfecting vessels and cargoes by artificially-produced cold. It had appointed Dr. R. W. Mitchell and a special committee to prepare a plan of organisation for relief in case of an epidemic of yellow fever in an inland town or city, including the organisation of medical relief and of nurses. The Executive Committee has been instructed to employ a committee of experts for making a thorough investigation of the etiology of yellow fever, and a schedule of questions has been issued relating to the sanitary condition of a city or town. The Act appointing the Board was passed on the 3rd of March, 1879, and the work here referred to appears to have been accomplished between that date and the 7th of April.

THE PARKES MUSEUM OF HYGIENE.

THIS museum is to be publicly opened on the 28th instant, by the Right Honourable R. A. Cross, the Home Secretary. We congratulate the executive committee on the choice they have made of a chairman for this important occasion, for Mr. Cross, by the introduction of his Artisans and Labourers' Dwellings Act, has shown that he takes a real and practical interest in the advance of hygienic knowledge. We are glad to notice also that the executive committee has been recruited by the addition of four members, all well known as learned and earnest sanitarians, and who, being unconnected with the college in which the museum is temporarily located, will show by their presence on the committee that the promoters of this useful institution are not bounded in their ideas by the needs of one educational establishment, but that they are really striving to make the Parkes Museum a great central institution for the instruction of the public. The four new members of the committee are Mr. Rogers Field, who is well known as a sanitary engineer; Mr. George Godwin, F.R.S., the editor of the *Builder*; Mr. Netten Radcliffe, whose sanitary labours in connexion with the Local Government Board are well known; and Dr. Steele, of Guy's Hospital. The number of contributions to the museum continues to increase steadily, and every department of hygiene is now fairly represented. Amongst recent contributions we may mention a very interesting series of models of orthopædic apparatus, the gift of Mr. Heather Bigg, and a large collection of water-closets given by Mr. Jennings, of Stangate. The library has been enriched by a complete set of the reports of the Local Government Board, and a set, nearly complete, of the reports of the Registrar-General. Messrs. Smith and Elder have also lately given a file of the *Sanitary Record*, and many other contributions of minor importance have been made.

Money is, we are sorry to hear, still much needed. The total sum subscribed amounts to barely £1100, and of this some £600 has been invested to form the nucleus of an endowment fund. It is evident, however, that if the museum is to be the permanent success which we hope it may be, an assured income sufficient to pay the salary of a curator and provide for the necessary current expenditure is absolutely required. Judging from the appearance of the museum at present, it will soon be necessary to think about building a suitable edifice for its reception, and we hope that the public and the profession will not be backward in supporting an institution which bids fair to be of the greatest utility to both.

THE DISCOVERY OF THE CIRCULATION OF THE BLOOD.

THE current number of the *Revue des Deux Mondes* contains an interesting article by Charles Richet on the discovery of the circulation of the blood, which is judicial in tone, and aims to apportion the honour of that discovery in an equitable manner. Beginning with the main facts of the circulation, as at present established, the writer passes on to consider the ideas which were held by the ancients concerning the heart and bloodvessels. He next points out the gradual dawning of a higher knowledge which took place in the 16th century, and which culminated in the grand demonstration of Harvey and the turning by him of hypothesis into fact. The idea of the circulation of the blood is stated to have first occurred to Servet, a writer who treated mainly of theological matters, and who, in 1553, published a work entitled "Christianismi Restitutio," which ultimately brought its author to the stake, and in which occurs the following passage:—"A dextro ventriculo, longo per pulmones ductus, agitatur sanguis, a pulmonibus præparatur, flavus efficitur, et a venâ arteriosa in arteriam venosam transfunditur. Ille itaque spiritus vitalis a sinistro cordis ventriculo in arterias totius corporis deinde transfunditur." A few years after the death of Servet, Colombo described the pulmonary circulation, and in 1569 Cesalpinus demonstrated that the blood in the veins flowed only in a centripetal direction, and further stated that "the blood conducted by the veins to the heart there receives its final perfection, and, this acquired, it is carried by the arteries to the whole body." In 1574 Fabricius of Acquapendente, the master of Harvey, discovered the valves in the veins. All these discoveries anterior to Harvey (observes M. Richet) do not diminish the glory of this great man. Very few discoveries spring entirely and at once from the brain of a single man, as Minerva sprang completely armed from the brain of Jupiter. They are prepared, matured, and pre-indicated for a long time; then there comes the man who unites the scattered facts, takes them up, discusses them, illuminates the confused ideas of his heedless predecessors, and at last establishes the truth. Such has been the part of Harvey. Undoubtedly among the pupils of Fabricius at Padua there must have been more than one who knew the valves and the pulmonary circulation, who had read Servet, Cesalpinus, Colombo, and who might have thought out the circulation

and have imagined that magnificent fact, the ceaseless circuit of the blood from the arteries to the veins, from the veins to the heart, from the heart to the lungs, from the lungs to the heart and arteries; but no one but Harvey wrote the book which he published in 1629. That which characterises this book, "*le plus beau de la physiologie*," as Flourens calls it, is that it bids adieu for ever to theories and to theological, metaphysical, and scholastic dissertations. Harvey had faith only in experience and in visible and experimental phenomena, and in this consists his superiority to Servet. Between the "Christianismi Restitutio" and the treatise "De Circulatione Sanguinis et Motu Cordis" there is the abyss which separates, from the scientific point of view, the middle ages from the modern. Servet made no experiment. He said that the blood of the pulmonary artery goes to the lungs and returns to the heart, but he gave no proof of it. The only precise experiment of the predecessors of Harvey is that of Cesalpinus—the swelling of a vein below but not above the seat of compression. As for Harvey, he made at each moment experiments and observations. The opinions of Aristotle and Galen mattered not to him; his gaze was fixed on the heart as it contracts and the veins which empty themselves into the heart. He estimated the blood which flows in a given time along the arteries or along the veins. Servet, Ruini, Colombo, and Cesalpinus had imagined the circulation; Harvey demonstrated it.

LIME-JUICE v. ALCOHOL.

THERE are visible signs of no uncertain kind that alcohol, as a beverage, is not likely in the future to have quite its own way, even in the metropolis. Coffee-taverns and coffee-tavern companies are being established now at a rapid rate, and, as far as we can judge, have worked very successfully. But before these places were much thought of—i. e., about two years ago—those who looked about them might have observed in the windows and at the bars of most public-houses, eating-houses, and ginshops, more or less conspicuous advertisements of several varieties of so-called lime-juice beverages. We have at the present moment before us examples of several of this kind, and there is no doubt that, particularly during the warmer months (though these, by the way, are now few and far between), lime-juice and its components constitute among the metropolitan public an exceeding popular drink. Most people have had, or think they have had, at one time of life some variety of cutaneous affection, which often takes the convenient synonym of scurvy. And as the latter disease was not many years since much written and talked about in connexion with the mercantile marine, and still more, two years ago, in connexion with the Royal Navy, we cannot be much surprised at the success of those who endeavour for commercial purposes to promote the sale of such drinks. It seems, however, that they do not meet with the unqualified approval of publicans, or rather of distillers and brewers. The former are now absolutely compelled to keep them, to sell them, and to advertise them. But, if we are correctly informed, the poor man's friend, in the shape of the licensed victualler, deprecates the inhibition of lime-juice in any form whatever. He sells it because the inevitable law of commerce—i.e., of supply and demand—compels him to do so. But he will tell the individual who asks for a glass that it promotes acidity of the stomach, that it deranges the kidneys, congests the liver, corrodes the intestinal canal, and so on, and then the customer is told that he had much better keep to the old glass of "bitter," or "gin," &c.

Being tolerably certain that the reports as to this sort of gossip are substantially correct, we counsel the public to turn a deaf ear to such elaborate and ignorant nonsense, and to drink their lime-juice whenever and wherever they list. There are with this, as with other liquids, pure and adulterated varieties, and as to this matter they must, of course, use their own judgment. But they may be assured that, as a rule, lime-juice is, particularly during the summer, a far more wholesome drink than any form of alcohol, and that, say, an ounce or two of the pure juice in a tumbler of really cold water, sweetened to taste, is about the pleasantest beverage that can be taken when the thermometer is over 65° or 70° F. We commend this drink to the attention of the coffee-tavern companies, but recommend them to procure the best West India lime-juice, as more wholesome than any mixture containing other ingredients.

POISONING BY RED DYES.

MR. HENRY LEE, consulting surgeon to St. George's Hospital, sends us the following cases of poisoning by dyes.

"Case 1.—A gentleman began to wear gloves lined with red plush on a Sunday. On the Friday following some spots came out on the inside of the hands. On the Sunday following a number of white pustules made their appearance; and on the Wednesday in the same week he felt so unwell that he gave up his ordinary business; the hands were worse and his mouth was sore. Two days later I saw this patient. The skin between the fingers was inflamed and swollen; there was heat and excessive irritation, and the parts affected presented numerous large blisters, containing a turbid serum. Finding that the affection at that time was confined to the sides of the fingers, I examined the gloves, and found that they were lined on the sides of the fingers only. The disease subsequently extended to the whole of both hands, which became so swollen, hot, and painful that the patient was unable to use them. Sickness, shivering, and loss of appetite followed; and the patient had to keep his bed for three or four weeks. The local affection was most obstinate, and recurred, although in a milder form, for some months.

"Case 2.—A gentleman, who had been residing in Ireland, consulted me for an exceedingly troublesome irritation, confined to his thighs and legs, which had continued, in spite of treatment, for two months. There was an eruption on the affected parts not unlike that which is sometimes produced by scabies. Seeing that the patient wore red drawers, I requested him to leave them off, and take some warm baths. The eruption and irritation disappeared in the course of three or four days without any other treatment.

"Case 3.—A lady, who was accustomed to take long walks, complained of intense local irritation, accompanied by a painful swelling below Poupart's ligament. From my experience of the two former cases, I asked if she was in the habit of wearing red drawers? This proved to be the fact, and as soon as she left them off the irritation and the corresponding enlarged inguinal gland at once disappeared without any further treatment."

Mr. Henry Lee observes:—"The very different effects produced in different instances by red dyes suggest the inference that more than one poison may be used in their composition. In the first of the above-mentioned cases more than one attempt was made to ascertain the exact nature of the irritating material used. No satisfactory conclusion was, however, arrived at. The slighter cases of irritation from red dyes probably pass unobserved, and the cause of the irritation may never be suspected. Instances of the severer forms of the affection have, however, from time to time been recorded for many years past. In the museum of the College of Surgeons a sock of a bright red colour is preserved. A patient who had worn the pair for a day had intense inflammation of the feet (*dermatitis anilina*), which lasted for a fortnight, and was repeated at intervals of a few

weeks for many months. The general features of the inflammation were heat, swelling, itching, tingling, and large blisters, while an eczematous irritation was propagated, more or less extensively, to the whole body of the patient, especially to the hands. Another sock of mixed fabric is also preserved, dyed with one of the aniline pigments. The socks were originally striped with purple, and the impression of the purple stripes was visible on the legs of the patient in the form of dark red bands that resembled burns. As in the preceding instance, the *dermatitis anilina* was severe and recurrent, and was repeated for many months. At its height it gave rise to swelling of the inguinal glands."

CARRIAGE OF INFECTIOUS DISEASES BY EMIGRANTS INTO THE THAMES.

AN instructive illustration of the operation of our sanitary laws in respect to the introduction of infectious diseases into our port towns by way of the sea was, a few days ago, a subject of conversation at a meeting of the Whitechapel Board of Works. It will be remembered that a recent important memorandum of the Medical Officer of the Local Government Board, Dr. E. C. Seaton, on the systematic action in use in England to prevent the importation of infectious diseases, went to show that it was based upon the notion that it was impossible to prevent all chances of infection being introduced, and whenever an introduction should occur there the means should be ready, as a matter of ordinary local sanitary administration, to deal with the disease at once. On the 15th of May a Polish family, emigrating from Poland, was landed in London, and took up quarters in Whitechapel. On the 16th the sanitary officers of that district received information from the relieving officer that a case of small-pox existed in the family. On proceeding to the house where the family were lodged it was discovered that the patient, a child, had been removed the night before to the Deptford Small-pox Hospital. All the articles pertaining to the family were subsequently disinfected, and no other cases appear to have arisen from this imported case. Now, here was a case the existence of which was not elicited by the questioning of the Customs when the ship arrived off Gravesend, and the existence of which could probably not have been detected except by a detailed medical inspection of the emigrants, even if then, assuming the eruption not to have appeared. It is landed in the densely populous district of Whitechapel, yet so excellent are the local sanitary arrangements that the case is at once ascertained and isolated, and mischief from it prevented. This is what the law aims at, and this case shows how efficiently the law may be applied. The port of London medical officer of health proposes to arrange a medical inspection of all emigrants before they are permitted to land. It would be interesting to know what responsibility emigration agents have in this matter, and to what extent they are aiding the port sanitary authority in the performance of its duties.

THE DUTIES OF CORONERS.

WE have received a letter from a medical practitioner in the metropolis, stating (1) that he was called to visit a woman sixty-nine years old, found her out of bed and dead, and learnt that she had retired to rest about 10 P.M., "after a supper of radishes." Further inquiries elicited the fact that no practitioner had attended her since 1874, at which time she was pronounced a subject of heart disease. Our correspondent declined to give a certificate, communicated with the coroner, and was informed by his beadle that an inquest was considered unnecessary. As this statement was made on the 31st ult., and it is assumed that the body is now buried, our correspondent asks who has given the certificate. We consider the question a very pertinent one, and quite agree with him that this is undoubtedly a case of "burial made easy."

In continuation of the same subject we have received lately a printed copy of a correspondence that has been going on between the coroner for the Chester ward of the county of Durham, and the Rev. Duncombe Shafto, a county magistrate and chairman of the Finance Committee of the county. The facts lie in a very small compass. It appears that the magistrate has recently thought proper to make some remarks in public relative to the practice of calling in medical witnesses at inquests, and indicated, at the last annual meeting of magistrates, that Mr. Graham, the coroner, summoned medical evidence too frequently, thereby entailing unnecessary expense. This is, as most of our readers know, a very old grievance, but Mr. Graham in this case, as we think, points out very distinctly the law on this subject, challenges Mr. Shafto to produce any special case in which medical evidence was positively superfluous, and shows that the magistrates have no power whatever to control the coroner in the exercise of his functions. Magistrates, as it seems to us, frequently appear to forget this fact.

MEDICAL OFFICERS FOR THE CAPE.

THE medical reinforcements for the Zulu war include the following officers, some of whom have already embarked for Natal, the remainder being under orders to do so at short notice:—Surgeon-Majors B. Kerr, W. Skeen, J. Hector, D. Renton, R. W. Jackson, C.B., R. Murphy, W. Barnett, J. Wood; Surgeons G. Ryan, W. Geoghegan, J. W. Martin, G. D. Leake, W. E. Saunders, O. E. Lloyd, J. H. N. Ussher, J. J. Falvey, James Ring. A number of the new pattern pharmacy and surgery waggons, shipped from Woolwich Arsenal, are on board the *Euphrates*, which left Portsmouth on the 27th ult. for Durban; large supplies of medicines, instruments, field companions and panniers, splints, bandages, and other medical stores, have been despatched by the transports that have lately sailed, and in addition medical comforts—wine, brandy, essence of beef, preserved milk, soups, &c.—have been forwarded for the use of the hospitals.

THE REGISTRATION OF DISEASES.

THE medical officer of health for Bolton, Mr. Edward Serjeant, in his annual report for 1878, gives a statement of the results obtained from the local Act for the registration of certain infectious diseases in that borough during its first year's operation. It would appear that 1939 cases were reported to the local authority under the Act in the twelve months, of which 2 were small-pox, 566 measles, 1093 scarlet fever, 17 diphtheria, 27 typhus fever, 129 typhoid fever, 97 continued fever, 4 puerperal fever, and 4 cholera. It is not presumed that the number of cases here recorded represented the whole of the cases occurring in the borough during the year, but it is thought they were a large proportion, and that they afford reasonable ground for the belief in the ultimate good working of the Act. Mr. Serjeant states that the knowledge thus obtained has proved of great practical value in bringing to light unhealthy conditions of houses, which might else have remained undiscovered, in enabling measures to be taken which limited the spread of infection, and in diminishing the mortality from fever and small-pox. But we must confess to being somewhat doubtful as to the whole of the benefits claimed when we find that the Bolton sanitary authority has no provision for the isolation of infectious diseases. Surely it ought to be a primary condition of granting local Acts for disease-registration that the sanitary authority, as empowered by the public health law, should have made due provision, and especially hospital provision, for dealing with cases of

infectious diseases. The cultivation of the habit of isolalation of infectious diseases among certain classes of the population would appear to be one of the main practical benefits to be got from registration.

CORONERS AND UNCERTIFIED DEATHS.

MR. CORONER BROWNE, the borough coroner for Nottingham, has initiated a practice which we hope will become a rule throughout the country—that of holding an inquest in the case of every person dying under the care of an unqualified practitioner. It appears that in two quarters, at Basford and the neighbourhood, there were no less than thirty-eight uncertified deaths. In the neighbourhood of Nottingham generally there is a large infantile mortality. To let this sort of thing go on is to disparage both life and the coroner's court. It is not a mere question between qualified and unqualified practitioners, as the registration authorities almost seem to think from the readiness with which they dispense with medical certificates in the registration system. The case which called forth Mr. Browne's views was a most painful one—that of a poor woman dying apparently from continuous hæmorrhage, and having a wish to see the principal, but always attended by his unqualified assistant. It is true that the last time the latter saw the case he left instructions that if the patient got worse, she was to let him know, and his principal would come; but the message was not sent, and the patient died. We repeat our hope that the coroner for Nottingham will persist in his determination, and that his example will be followed by every coroner in the country. The office of coroner would be more respected if all coroners would act as Mr. Browne is doing.

SMALL-POX "IN TERROREM."

THE *Aberdeen Herald* of the 10th ult. gives a long account of a case of small-pox that occurred on board a ship first brought into the port of Nairn, and afterwards removed to Inverness, where, after much discussion by the port sanitary authority, the man was removed to the so-called cholera hospital, and died the next day. We draw attention to the case for two reasons. First, the members of the local committee and their clerk seem to have misread the 124th section of the Public Health Act of 1875, which distinctly empowers them to remove any case from a ship or vessel suffering from a contagious or infectious disorder, on a certificate signed by a legally qualified medical practitioner, and with the consent of the superintending body of the hospital. But this, as it appears, could be and was eventually obtained without any difficulty, and hence the question arises, Why did that authority delay to act? Was it on account of the second point, to which we wish to draw the attention of our readers? The *Aberdeen Herald* reports that the medical officer of health, having been asked in committee why he had not seen the patient for two days, replied, "I would not go down to the place; he is in for five hundred pounds." We forbear to give the name of this medical officer (who should adopt "small-pox *in terrorem*" as his motto); but if the Inverness sanitary authority is thus represented in council by the professional staff, we cannot wonder that dissension and vacillation subsequently prevailed. As Mr. Mackenzie pertinently put it, "If a medical man cannot go into the place, how are other men to go?" We say, emphatically, How, indeed! We trust, for the credit of the profession in the upper regions of the United Kingdom, that there is some printer's or reporter's error in this article of our contemporary, the *Aberdeen Herald* of May 10th. If not, then more 's the pity. We are, however, desirous to draw attention to the conduct of another medical man at Nairn, who offered, if no one else could be found, to go on board and remain there in order to prescribe for and nurse the man himself.

LE MÉDECIN MALGRÉ LUI.

THOSE who were at the Gaiety Theatre on the 6th instant enjoyed a hearty laugh at the imperishable three-act farce of Molière, in which he exercises his powers of satire (as he not unfrequently did) upon the professors of the healing art. As this little play is performed by the Comédie Française, it appears to us to be the very perfection of harmless fun, and we regret that only one representation of it will be given during the visit of the French actors to London. Got as Sganarelle, the mock doctor, entered into and seemed to enjoy his part, and it is, indeed, a matter of doubt whether the appearance which he presented, in a black gown and ruff and a high steeple hat, or the pathology which is put into his mouth, were either of them very great exaggerations of things as they really were in the time of Molière. The patient that Sganarelle is called upon to cure is a fanciful young lady who has become dumb, and the following is the explanation of her condition which he offers to the awe-stricken and wondering relatives:—"These vapours of which I speak, passing from the *left side* where is the liver to the *right side* where is the heart, it happens that the lungs (which we call in Latin *armyan*), having communication with the brain (which we call in Greek *nasmus*) by means of the vena cava (which we call in Hebrew *cubile*), encounter the said vapours which fill the ventricles of the omoplates, and because the said vapours ..... have a certain malignity which is caused ..... by the acridity of the humours which are engendered in the concavity of the diaphragm, it happens that these vapours ossabundis, nequeis, nequer, polarinum quipsa melus. Now you see why it is that your daughter is dumb." Molière must often have laughed at the utterance of pathological doctrines quite as wild and as mystifying as the above.

UNWASHED VEGETABLE FOOD.

WHATEVER advantages, real or imaginary, may attend the consumption of raw vegetables, it is abundantly evident that peril must beset the use of this description of food, unless the articles eaten are most thoroughly cleansed. For example, water-cresses grow in shallow streams or ditches, and are apt to be fouled by dogs, which are known to be commonly infested with intestinal vermin. If the cresses so produced are not scrupulously washed—and nothing less than the most painstaking brushing under water can cleanse them—they are more than likely to convey into the stomach, entangled in their leaves or attached to the stems, the ova of tapeworms and other parasites. This is a distasteful and disgusting reflection, but it is one that needs to be made, because there cannot be any reasonable doubt that cresses, salads, and fruit growing low on the ground are exposed to every form of contamination, and some, at least, of the impurities with which they may be defiled will probably act as vehicles for the transmission of parasitic diseases not merely disgusting but dangerous.

ON THE USE OF ETHERISED COD-LIVER OIL.

THE Therapeutical Society of New York appointed last year a Committee on Restoratives, to report, among other matters, on the therapeutic value of the addition of ether to cod-liver oil, as originally proposed by Dr. Balthazar Foster. We noticed in September last a favourable preliminary report, and we now find the concluding report of the committee in the last number of the *New York Medical Journal*. It deals with sixty-three cases, contributed by three observers. A few of the cases are given in brief, and some striking details are narrated in support of the efficacy of the ether. Altogether the committee have had ninety-four cases (in the two reports) before them, and they are of

opinion "that the evidence warrants the following conclusions:—1. That the addition of ether to cod-liver oil in about the proportion of fifteen minims to each half ounce (or an equivalent amount of the compound spirit of ether) will succeed in the vast majority of cases in enabling the patient to take the oil, even though it previously disagreed. 2. That in some cases in which the oil still disagrees after the addition of the ether, the difficulty may be overcome by giving the ether separately, from fifteen minutes to half an hour after the oil is taken. No facts have been laid before the committee having a bearing upon the question as to whether the etherised oil is superior to the plain oil in its ultimate effect upon nutrition, supposing them to be equally well tolerated by the stomach."

We congratulate the committee on having produced so satisfactory a report.

DEATHS IN THE ARMY MEDICAL SERVICE.

WE regret to notice during the past week the deaths of two more officers of the Army Medical Department, Surgeon-Majors John Stuart and Frederick Oakes. Mr. Stuart entered the service on the 13th October, 1858, and was promoted Surgeon-Major on the 28th May, 1873. He served for many years in the Royal Engineers, and had recently returned from the Straits Settlements. Mr. Oakes obtained his first commission in 1863, served on the West Coast of Africa for several years, and was promoted to be Surgeon-Major in May, 1876.

The correspondent of *The Times* reports the death of Dr. A. S. Duncan, one of the civil surgeons sent out by the War Office in February last for employment with the troops in Zululand.

CHONDROSIS OF THE AURICLE.

AN interesting case in veterinary pathology, and which has an important bearing on human physiology, is recorded by Mr. Hugues in the *Journal de Médecine de Bruxelles*. The right auricle of a horse aged six years was found to be completely cartilaginous, being composed of three pieces of cartilage closely united to one another by fibrous ligaments. The largest had the curvature of the corresponding ventricle, the outer surface being convex and the inner concave; it measured 14 centimetres by 9; the second piece measured 7 centimetres by 4. In no part could any trace of muscular fibres be discovered. The horse died of acute pleurisy, myocarditis, and pericarditis, consequent on a long drive after a journey, and until the commencement of the illness, a few days before its death, it appeared to be in perfect health. Mr. Hugues points out very pertinently that the case strikingly illustrates the passive *rôle* of the auricles in the action of the heart.

SANITATION AT GUILDFORD.

IT is to be hoped that during the first week of June sanitary matters in the town did not require the intervention of a medical officer of health. It appears that the Local Government Board objected to the election of any officer before the 31st ult., because the period for which Dr. Morton was appointed did not terminate till that date, and no meeting of the authority took place until the 3rd inst. Our contemporary, the *Surrey Advertiser*, is very much exercised as to the matter. But we might ask, How did they manage twenty, or even fifteen, years ago?

NURSES FOR ZULULAND.

THE Stafford House Committee, having decided on sending out nurses to Zululand to tend on our sick and wounded soldiers in the base and field hospitals, have appointed Dr. J. T. Carter Ross, late Deputy Surgeon-General Bengal Army, their commissioner and representative in South Africa. Dr. Ross, a medical assistant, and the first party of nurses sailed for the Cape in the mail steamer *Roman* on Thursday. On Dr. Ross's report as to the usefulness of female nurses at the seat of war will rest the question of further batches being despatched. The Society have empowered Dr. Ross to purchase, locally, medical stores, comforts, warm clothing, &c., as may be considered requisite for the sick, and to give aid indiscriminately to our own troops and to the colonial volunteers and corps associated with the army in the field.

THE MEDICAL STUDENTS' REGISTER.

THE list of medical students registered during the year 1878 is published. The register has not generally been published so early in the year. The list of names—numbering 1734, the largest number registered in any of the last ten years, probably in any year—is preceded by statements, explanations, copies of the regulations of the Council, &c., in reference to the registration of medical students, which add to the interest and value of the register. The whole is executed with evident editorial care. The number of registrations of students in 1868 was 924; in 1878, 1734. The average number in the last ten years was 1461.

DR. CLOUSTON, the physician-superintendent to the Royal Edinburgh Asylum for the Insane at Morningside, has published a pamphlet entitled "An Asylum, or Hospital-Home, for Two Hundred Patients: constructed on the principle of adaptation of various parts of the house to varied needs and mental states of inhabitants." With plans. (Boston: Rand, Avery, and Co.) It is interesting as a *rechauffée* of the received opinions of experts on the subject of asylum, or rather hospital, constitution for the care and cure of the insane, and shows that the author has read carefully and observed attentively. His conceptions of the possible are not perhaps sufficiently realistic; but practical men will find something to interest them in his pages, and those who are beginners in lunacy practice, or have not hitherto enjoyed any large opportunities of experience, may profit by the suggestions of this little work.

AT the annual general meeting of the Poor-law Medical Officers' Association, held at the Freemasons' Tavern, on Tuesday, the 3rd of June, one of the resolutions proposed and carried unanimously was to the effect, "That this meeting desires to record its hearty recognition and appreciation of the influential memorial originated by THE LANCET, in reference to the reform of the Poor-law Medical Service, and while regretting that at present no tangible results have accrued, this meeting cherishes the hope that the desired objects may yet be fully attained."

ERBSWURST has proved itself to be a very popular and useful preserved food in Natal. But, in describing it, one of our contemporaries makes a slight mistake. The preparation is not at all like the German sausage, but is a composition that, with the addition of some water and some few minutes' heating, is converted into an exceedingly palatable and nutritious soup.

M. SIMON DUPLAY, the well-known surgeon of Lariboisière Hospital, and the author of a treatise on Surgery, has been elected a member of the Academy of Medicine in the Section of Operative Medicine.

THE late staff of the Dewsbury and District General Infirmary have been re-elected, along with Mr. Broughton, of Heckmondwike, who, during the interregnum, attended the patients of the infirmary.

THE *concours* for the post of Physician to the Hospitals of Paris has just been brought to a close by the nomination of MM. Hutinel, Rathery, and Laudouzy.

BY a decree of the 31st of May, M. Wurtz, the Professor of Chemistry and Member of the Institute, has been appointed a Member of the Council of the Legion of Honour.

SIR TREVOR LAWRENCE, BART., M.P., has consented to occupy the position of President of the Poor-law Medical Officers' Association, vacant by the retirement of Dr. Lush, M.P.

ADDRESS

Delivered on the occasion of the Distribution of Prizes to the Students of the Faculty of Medicine of University College, on May 20th, 1879.

BY W. H. WALSHE, M.D.

MY LORD, LADIES AND GENTLEMEN,—On occasions like the present it has invariably been held to be the duty of the Chairman to address some observations to the assemblage before its separation. In yielding to the time-honoured custom I will endeavour to bear in mind that "brevity is the soul of wit," and detain you as short a time as I reasonably may.

Gentlemen students, history, we perpetually hear, repeats itself, and you yourselves at this moment furnish a not too fanciful illustration of the trite saying. You, like your predecessors of successive years, are, in regard of the event of the day, divisible into combatants and non-combatants. Now I might (catching the hint herein given, and following high precedent) take the opportunity of dwelling on the advantages of class competition, and, by an easy transition, of discussing the vexed question of competitive examinations in general. But, gentlemen, I look with little favour on a theme through which differences can be traced between you; I had rather say my little say on a topic in regard of which you all completely agree,—are absolutely one. What that topic is, you at once divine; you have all adopted medicine as the occupation of your future lives.

Now, in selecting this career, can it be said you have acted unwisely? Can you be taunted with having shown a deficiency of sagacious insight into the conditions likely to secure you as great an amount of happiness as may, in this "vale of tears," justifiably be hoped for? Believe one who has long belonged to the rank and file of the profession, when he tells you your choice betrays no such lack of wisdom.

Viewing your selection from a merely social or worldly standpoint, you have embraced a calling which with well-nigh absolute surety secures to the man who adopts it, rewards, both substantial and sentimental, by no means to be despised—that is, provided he join his profession in a spirit of thorough earnestness and devotion, with a becoming sense of the grave responsibility of the work before him, and provided he be prepared to follow it with unfaltering industry and fixity of purpose.

'Tis true, the meed of State honours that awaits you is not mighty. The first Napoleon, referring to his raw conscripts donning their new regimentals, used to say, "Each of those fellows carries a possible marshal's staff in his knapsack!" Now I fear I should go too far were I in like fashion to venture on the pleasing fancy, that each of you will bear away a possible patent of title attached to his diploma; but I can in all truth tell you, you may achieve honourable competence, with, as its effect, glorious, high-handed independence; you may win the affectionate regard of those on whom your skill is exercised; and, ever treading in the paths of honour, you may, nay will, command personal respect equal to that enjoyed by any member of the circle in which destiny may cast you. Competence, affection, respect—what more is wanted (in the world outside home) to deck with flowers the thorny ways of life?

But 'tis not on any social advantages, be they great or small, which may await you, I care at present to dwell; I wish rather to utilise the brief moments at my disposal in glancing at some of the intellectual and emotional aspects under which your future occupation may be viewed.

It seems mere commonplace to say that the great edifice of Medicine is built up of contributions from various sciences. But underlying that commonplace is found a truth, one bearing of which (scarcely, as a rule, conceded its due importance) I desire at this moment to insist upon—namely, the wideness and diversity of scientific range of your pursuit. The multiplicity of cognate and allied subjects in the cultivation of which you may enjoy intellectual life, is, in fact, extreme; you may disport yourselves in almost endless by-paths, while feeling assured you do not really wander from the main road that leads to advancement of your art. In this respect your profession stands above even the possibility of rivalry.

Now the scientific field which seems most naturally to invite occupation is that of either pure medicine or surgery. And it is needless to say that in the clinical pursuit of either of these branches of your profession lies ample scope for the exercise of the most brilliant as of the most solid intellectual qualities, the observant, the contemplative, and the inventive.

But let us assume that, while attached to the actual art sufficiently for practical purposes, you yet, for some cause or other (say, repugnance to witnessing and dwelling on, more than absolutely necessary, the multifarious forms of human suffering), desire some other ground for intellectual recreation. You have the provinces of philosophical anatomy, human, comparative, and fossil, histology and physiology, awaiting your care, and ready to reward your toil with plenteous discovery. In handling Physiology, above all (while we cannot admit the doctrine that out of physiology, be it ever so sound, can be directly fashioned a reliable pathology), you handle an instrument of incalculable value in supplying a standard of comparison between the normal and the abnormal, in suggesting and giving direction to clinical investigations, and in explaining pathological facts and groupings. Every truth your devotion to its culture elicits will assuredly prove a direct or indirect, immediate or remote, contribution to the knowledge of disease.

Or, does your mental temperament fail to find attraction here, then the crucible and the alembic place themselves at your disposal. In Organic Chemistry, especially, you have an agent which is not only indispensable as an aid in scientific and pathological research, but which has proved of very material use in suggesting variations and in explaining the results of medical treatment.

If even yet unsatisfied, you may betake yourselves to the culture of physics, and need but recall the benefits conferred on sufferers of various classes by the inventions of Neil Arnott, to feel satisfied that in the study of Hydrostatics and Mechanics an opening exists for the practical advancement of your profession. So, too, the science of Optics, even in its mathematical department, contains a mine of wealth, yet but partially worked, for the establishment of the laws of certain perversions of vision.

Or, perchance, the "gentle science," as it has been called, Botany, has greater charm for your special idiosyncrasy. Here, again, large opportunity exists for useful work in adding to the Materia Medica, and in helping to prove the justness of the enthusiast's dream, that for each form of human infirmity bounteous nature has provided a fitting remedy. Well, she may not have gone thus far, but there can be little doubt Mother Earth grows simples, yet unthought of, which will reward the labour of discovery and experimentation.

Or there is a department of study which (old as Hippocrates) at the present day more than ever solicits the devotion of earnest men, I mean Hygienics and Sanitary Science, or Preventive Medicine. If here you find a congenial sphere for the exercise of your abilities, public gratitude awaits your every effort, whether directed towards the purification of the air we breathe, the water we drink, the provisions we consume, the houses we inhabit, &c. Your place as natural leaders in all work of this description is at least recognised by the nation; you will not toil without acknowledgment of your services. What a change from a time not so far removed from the present hour, when I remember to have read in one of the lay quarterlies that some project of sanitation,

then before the public, was vitiated by one radical defect—namely, that it was proposed medical men should take part in carrying out the necessary measures. "How," remarked the generous and far-seeing critic, "how could it be rationally expected that a body of men, who live by disease, would take a serious part in extirpating it?" The only evil I will wish our thoughtless traducer is that he may have lived to see the error of his ways.

But the quality of your minds may not easily adopt itself—may be actually antagonistic—to any one of these varieties of work, except the mathematical. Your minds may be of the most positive among the positive types; you may instinctively shrink from dealing with questions tainted with an element of uncertainty—questions to which the answers can, at the best of times, prove little more than intensely probable. Then imitate William Farr, whose mind was moulded precisely after this fashion, and betake yourself to Medical Statistics. Manipulate integers representing for you, with a certainty that may not be challenged, facts of disease; turn them, twist them, set them side by side in varied aspects connected with age, sex, season, locality, occupation, density of population, and so on indefinitely, and you still work in the legitimate realm of medicine.

Or are you endowed, by chance, with a love of the study of physical nature—land and sea, mountain and valley, river and lake: you may indulge your fancy to the top of your bent, and utilise it to the scientific and practical advantage of Physic. You may, like Arthur Haviland, contribute to an enlarged knowledge of the geographical distribution of disease; or, like George Buchanan, succeed in throwing light on its etiology by investigating the influence of various soils; or, in concert with numerous workers at home and abroad, add new facts in elucidation of that intricate problem, the influence of climate on the progress, for evil or for good, of various maladies.

Or, to cite one more illustration, has nature gifted you with the aspiration and the power to grapple with the phenomena of Mind?—is the bent of your talent metaphysical? Seize, then, the seductive opportunity, afforded through your familiarity with the physiology and pathology of the brain, of submitting to the test of an objective experience the subjective results of the metaphysician's introspection. So will you aid in showing that the psychological method of interrogating self-consciousness, as a factor of a complete system of mental science, must look for supplementary help to the study of facts, tanght by observation of the brain action of others, nor ourselves, in health and disease. In a word, seek for work in that tempting borderland lying between Metaphysics on the one hand and Cerebral Physiology and Pathology on the other. There you will find Henry Maudsley has planted his standard, and brilliantly possessed himself of the previously well-nigh unbroken ground. But he, probably more readily even than others, would admit there may be found abundant acres yet uncultivated in his scientific domain, and welcome you as co-labourers to their tillage.

But whichever be the path selected wherein to expend your mind's activity, your goal will be truth, as far as accessible. All truth, absolute truth, is probably not within man's reach in any department of the sciences of observation, confessedly not in that of medicine. For example, the physiologist would doubtless delight to know, with a quasi-mathematical precision, how, in the workshop of the brain, thought is manufactured; what dynamic struggles, what chemical decompositions and recompositions, what physical tissue-changes are essential, as tertiary conditions, to the elaboration of an idea. So, too, the pathologist would gladly present his little claim to know, with minutest accuracy, what comes of these various processes in delirium, hallucination, mania, delusion; are these processes modified merely in intensity, in combination, in co-ordination? Or is there a something absolutely new in the physical and chemical brain-perturbations tributary to the production of a madman's thoughts? But with all these phenomena, we possess at the present hour only a most imperfect and purely tentative acquaintance. And fortunate it is for the physiologist that his actual responsibility ceases with their statistical element. Fortunate it is for him that the determination and analysis of the non-material force, or secondary spiritual cause, which (obeying the fiat of the Great First Cause) touches, as it were, the spring that brings into effective play that wondrous mechanism, the outcome of whose activity is thought, lies beyond his province. Well may he congratulate himself that his legitimate and enforced task extends not thither; that if he chooses to penetrate this further region of inquiry, he does so merely as an amateur, free from scientific responsibility. For speculation, of at once the most ambitious and the haziest type, cloaking uncertainty only too absolute, would, judging from the achievements of other classes of scientists, prove the sole result of his migration into these realms of intellectual darkness yet more Cimmerian than his own.

But are *we*, physiologists and pathologists, worse off, less bewildered, in our own special provinces, than the devotee of even the exact sciences occasionally finds himself? Take the astronomer, who, as he peers on a star-lit night into the depth of the heavens, descries within telescope range countless suns lost so far away in the unfathomable regions of space, that their light (assuming that it travels at the same rate as that emitted by our own sun, about 190,000 miles in a second) would require thousands upon thousands of years to reach his eye—who, warranted by inference, to which no logical objection can be urged, accepts as fact that like solar systems exist beyond and beyond and yet beyond all these his comparatively feeble instrument can reveal, themselves launched in a universe to which there is neither beginning nor end—who feels that he is in the presence of infinite Space and infinite Matter in infinite Time, and asks himself, What is in Infinity? The problem forces itself upon him. With a craving anxiety, almost savouring of mental torture, he strives to solve it; but solution to the stupendous enigma there is none! The moment he attempts to travel from finite space, on which his marvellous calculations are habitually worked, to the infinite beyond, his power is annulled. His mind, with its existing dynamism, and subserved only by the five senses assigned the dwellers on this poor earth, in their present phasis of evolution, is incapable of conceiving the Infinite, even in the rudest and most hypothetical manner. Both for astronomer and physiologist "there are more things in heaven and earth than are dreamed of in our philosophy!"

Let the failure teach us humility. What are *we* that we should rebel against the limitation of our knowledge, when Newton himself was content "to pick up pebbles on the shores of the great ocean, Truth"? *We* must not murmur that it is our lot to furnish a goodly contribution to the "Unknowable" of Herbert Spencer! Nay, more: there may be wisdom, as assuredly there is comfort, in the notion, urged by a German physiologist, that it is rather the struggle to attain truth, than the actual amount of truth possessed, that exalts intellectual manhood. "Were the Deity," says this unfettered thinker, "to place in his right hand all truth, and in his left only the abiding, never sleeping, yearning desire to obtain truth, *and offer me the choice*, I should humbly turn me to the left, and say, 'Father, give me this; pure truth is fit for thee alone'"!

The emotional aspects of your profession have been "sung by loftier harps than mine"; I will not risk the marring of their harmonies by any harsh strains of my own. In lay authors, I need only remind you, you may read of the deep and solemn delight you are entitled to feel when you have demonstrably been the agents in saving or in prolonging life—of restoring one deemed wellnigh lost to those who love him. You are told with gratitude how you staunch the soldier's life-blood on the battle-field, and deftly cure his wounds so that he may live; though it were better said—as one of our own craft, Ambroise Paré, in days of yore, more modestly put the facts—"Dress his wounds, while God cures them." The citizens you save every now and then to the State, by tracing out a new and healthful career for him, whose present way of life, you divine, must lead to premature death and decay, are spoken of as abiding witnesses to your skill. Nor is credit withheld you as mitigators of the wretchedness of pain; or, if no more be possible, as smoothers of the passage which leads to that "bourne whence no traveller returns."

All these links between yourselves and suffering man furnish emotional attraction to the exercise of your art; through them you succeed in lending aid, slender though it be, towards lightening the wellnigh unbearable load of misery which weighs down our race, and which has made Pessimism, the dismal faith of Schopenhauer, a possible philosophic creed.

And might I here take the opportunity of saying a few words on a field for sympathy rather neglected than otherwise? I mean the sufferings of so-called "nervous patients." "People with nerves"—that is, people the victims of various neuroses—because all means of objective investigation fail

to detect structural flaw in their organs, are complacently assigned a nosological status as hypochondriacs, and thenceforth ofttimes denied all, or grudgingly doled out the scantiest, commiseration. Let me implore you not to be thus unjust; try to believe that these sufferers may know their own feelings better than you can guess them, that their affirmations may be wiser than your negations, that their stories of indefinable torture, besetting them by day and sometimes leaving them little respite by night, may be only too literally true. Though I cannot, out of my own knowledge, on the one hand, wholly agree with Claude Bernard, nor on the other distinctly refuse to follow him in the doctrine that innervation is *always* the primary dominant power in disease, as in health, still, I feel clinically certain that what I may call the imponderable element of morbid action, that is, perverted innervation—nerve gone astray—holds the governing place within the pathological range as a regulator of human misery. Compare the man who labours under a structural defect of his heart, that may even as he stands before you kill, and who (*his cardiac nerves being tranquil*) smiles incredulously if the integrity of the organ be in the faintest fashion challenged—compare this man with another whose heart issues from the most patient physical scrutiny as a piece of perfect structure and mechanical adaptation, while his life is, in point of fact, rendered one unbroken misery by disordered innervation of the organ, and his conviction remains unshakable, in spite of all your protestations to the reverse, that its texture is profoundly diseased. The latter is a man claiming your gentlest and truest sympathy, and, though on different grounds, as justifiably as the former. Above all, do not, as some pathologists have striven to do, place him in the category of the mildly insane; call his nerves insane, if you will; but his brain is often, unfortunately for himself, only too sane. And I do not stand alone in pleading the cause of these sufferers; the late James Johnson, and, yet more earnestly, Russell Reynolds, have written eloquent words in their behalf.

Before concluding, gentlemen, I should wish to say a few words on the manner of your work. A long intercourse with my fellow-men has led me to the conclusion (despite the well-known stories of Bichat, Porson, and a few such exceptional and brilliantly gifted men) that steady moderate industry achieves greater results than fitful application of the severest kind. 'Tis not the man who wastes weeks or months in frivolous amusement, and then makes up for lost time by spasmodic efforts of fierce labour—the midnight oil burning before him, the black coffee by his side, cloths steeped in vinegar cooling his fevered brow,—'tis not this man who succeeds in raising himself to eminence, or in adding his mite to the sum of previously acquired knowledge. No! 'Tis the steadfast toiler, who never wastes the day he cannot recall, who (in the fashion that Titus of old marked each day by an *act of goodness*) never allows twenty-four hours to slip away without having performed his *act of work*,—who "hives wisdom with each studious day." 'Tis the old story of the perpetual drop, drop, drop, eating its way through the rock, while violent occasional torrents pass over its surface, leaving its substance unscathed. I was greatly interested some while ago at hearing from the lips of a philosopher who is not only one of the foremost and deepest thinkers in Europe, but one of those who has produced most veritable work, that he limits his time of actual application to a very few hours daily; but then, from the first to the last of the year, each day (no matter what be the attraction otherwise) is made to furnish its contribution of toil.

Gentlemen, the logical methods adopted of late years in the study of medicine have attracted the attention of the lay world, and every now and then, even in the columns of the political press, are made the theme of praise and held up as models for imitation. Beyond all reasonable question this homage is mainly paid us because we have learned to substitute the authority of facts for the authority of persons, and ceased to regard mere theories as deserving of recognition except as suggestive of inquiry. In the field of literature the satire of Molière, which left few of the follies of his time untouched, fell heavily on this worship of personal authority, in lines which may be freely, though feebly, rendered thus:—

> All that talk was trash,
> Coming from a *Nobody*;
> 'Twould have been exquisite sense,
> Had it been said by a *Somebody*!

Time was, and recently, too, when in medicine, as in literature, personal authority reigned supreme; the smart saying "rather be wrong with Scaliger than right with the first comer" was generally accepted as the true guide to scientific judgment. We of the latter half of the nineteenth century have signally reversed all this: our motto is "infinitely rather be right with an unknown man, provided he brings us his budget of facts, than pin our faith on the unproven assertion of a host of Scaligers." The trammels of prejudice and authority have, in truth, been rent asunder; the tyranny of stereotyped ideas is dead. Cæsarism in science, as in politics, we have learned to abjure with all our souls.

In this matter I need only counsel you, *Be of your time*. Enlist your powers, as the slaves of fact, in the service of observation. Cultivate sedulously your observant faculties, remembering it is perhaps even more difficult to observe facts faithfully than to reason justly on well-observed facts. Shrink from the acceptance of theories and hypotheses as proven truths and grounds of action, be they ever so plausible, ever so ingenious, ever so apparently true, and be their paternity ever so distinguished. Let your guide to scientific faith be found in the oft-quoted thought of Goethe:—

> *Grey* is all theory,
> And *green* the golden tree of life!

Engraft on this faith *enthusiasm* (that galvanic battery of the intellect), which vivifies power, where it exists, and even summons it into being where it is not.

It remains for me to tender my thanks to the Council for the honour done me in inviting me to preside to-day. None can know better than myself that their invitation had no warranty in any particular fitness of mine for the office; I feel simply that in applying to one who formerly filled a chair in the College they were desirous of exhibiting their wish to tighten yet further the bonds of amity, always closely knit, that exist between themselves and the professorial body.

Nor can I forget my quondam colleagues who so cordially received the Council's nomination, and yet not precisely the colleagues of old. I miss the shrewd and genial smile of the wise and learned Sharpey; the patient, accurate, and earnest Ellis no longer guides the scalpel of the young; Grant, he who, with a novel zoophyte before him, felt greater than a monarch, is seen no more; the gentle and winning devotion of Parkes has ceased to smooth away the difficulties of the zealous worker. But if these men of mark have disappeared from among us—are no longer here to dignify by precept and example the offices they filled—others have succeeded to their places as able as they to expound the doctrines of the sciences they profess, and instil into those they teach a love of that which is taught. In truth, University College seems to possess the happy faculty of attracting to its fold an ever-increasing mass of intellectual power. The props of the edifice appear to strengthen as years roll on; the edifice itself, sacred to freedom of conscience and of intellect, must endure! And that it may so endure, that its academic lustre may ever brighten more and more, is the fervent hope of him who has now addressed you.

HEALTH OF LARGE ENGLISH TOWNS

IN THE TWENTY-THIRD WEEK OF 1879.

DURING last week 4333 births and 2785 deaths were registered in twenty of the largest English towns. The births were 849, and the deaths as many as 585, below the average weekly numbers during 1878. The deaths showed a further decrease of 118 from those returned in recent weeks. The annual rate per 1000, which in the thirteen preceding weeks had declined from 29·1 to 20·5, further fell last week to 19·7, a lower rate than has prevailed in any week since the middle of June last. The lowest rates in these towns last week were 14·7 in Plymouth, 16·3 in Brighton, 16·8 in Hull, 17·2 in Sheffield, 17·4 in Wolverhampton, and 17·8 in Sunderland. The rates in the other towns ranged upwards to 22·0 in Leicester, 22·1 in Manchester, 23·2 in Bradford, and 23·4 in Oldham. The deaths referred last week to the seven principal zymotic diseases in the twenty towns were 369, and one more than those returned in the previous week; they included 102 from measles, 79 from whooping-cough, 72 from scarlet fever, and 35 from fever,

chiefly enteric. The annual death-rate from these seven zymotic diseases averaged 2·6 per 1000 in these towns last week; it was but 0·0 and 0·4 in Nottingham and Portsmouth, whereas it ranged upwards to 3·7 and 5·0 in Norwich and Newcastle-upon-Tyne. Measles showed the largest proportional fatality in Salford and Leicester, scarlet fever in Oldham and Newcastle-upon-Tyne, and whooping-cough in Birmingham. Of the 11 deaths from diphtheria which occurred in the nineteen large provincial towns, 4 were returned in Liverpool, and 3 in Birmingham; 6 fatal cases of fever were recorded in Liverpool, and 4 in Newcastle-upon-Tyne. Small-pox caused 11 more deaths in London, but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had steadily declined from 353 to 199 in the fifteen previous weeks, was 207 on Saturday last; 48 new cases of small-pox were, however, admitted to these hospitals during last week, against 48, 49, and 44 in the three preceding weeks.

THE MURCHISON MEMORIAL.

(LONDON AND EDINBURGH UNIVERSITIES.)

First List of Committee.

The Right Rev. the Lord Bishop of Ripon, D.D.
Sir W. Jenner, Bart., K.C.B.
Sir Wm. W. Gull, Bart., F.R.S.
Dr. Risdon Bennett, F.R.S., Pres. Roy. Coll. of Phys.
Sir Robt. Christison, Bart.
Sir Joseph Fayrer, K.C.S.I.
Professor Gairdner.
Dr. Priestley.
Professor Frerichs, Berlin.
Professor Grainger Stewart.
Professor Maclagan.
Professor Balfour.
Dr. George Johnson, F.R.S.
Sir J. Rose Cormack, Paris.
Dr. Charcot, Paris.
Dr. Nöel Gueneau de Mussy.
Dr. Andrew Clark.
Jonathan Hutchinson, Esq.
Dep. Surg.-Gen. Mackinnon, C.B.
Dr. A. P. Stewart.
Dr Burdon-Sanderson, F.R.S.
Dr. Quain, F.R.S.
Dr. Wilks, F.R.S.
Professor Acland, D.C.L., F.R.S.
Joseph Lister, F.R.S.
Dr. Cobbold, F.R.S.
Dr. Thos. Reith, Edinburgh.
Dr. Marion Sims, Paris.
John Couper, Esq.
Dr. Marcet, F.R.S., Cannes.
Professor Bäumler, Freiburg.
Dr. J. Matthews Duncan.
Dr. Bristowe.
Dr. R. Wilbraham Falconer, Bath.
Dr. George Harley, F.R.S.
Ernest Hart, Esq.
Dr. T. Lauder Brunton, F.R.S.
Dr. A. Wynne Foot, Dublin.
Dr. Clifford Allbutt, Leeds.
Dr. Ord.
Dr. Herman Weber.
Dr. E. Long Fox, Clifton.
Dr. W. H. Stone.
Professor Philipson, Durham.
Sydney Jones, Esq.
O. Mackeller, Esq.
Dr. Farquharson.
Dr. Armitage.
Septimus Sibley, Esq.
Dr. Burney Yeo.
Dr. Wade, Birmingham.
Dr. Arthur Gamgee, F.R.S., Manchester.
E. R. Bickersteth, Esq., Liverpool.
Philip Vanderbyl, Esq.
Dr. Duckworth, Hon. Sec.
Dr. Greenfield, Hon. Sec.
Dr. Potter, Hon. Treasurer.
Dr. Lowndes, Egham.
T. Hyde Hills, Esq.
Professor Maclean, C.B., Netley.
Professor Smith Shand, Aberdeen.
John Croft, Esq.
Dr. Wm. Roberts, F.R.S., Manchester.
Dr. Russell Reynolds, F.R.S.
Dr. Byrom Bramwell.
H. H. Clutton, Esq.
Dr. Henri Gueneau de Mussy, Paris.
Dr. Harry Leach.
Dr. Cogswell.
Henry Kiallmark, Esq.
Wm. MacCormac, Esq.
Dr. Maclagan, London.
Dr. Barnes, Carlisle.

First Subscription List.

	£	s.
Dr. Burdon-Sanderson	10	10
Dr. Andrew Clark ...	5	5
Professor Lister.....	5	5
Ernest Hart, Esq.....	5	5
Philip Vanderbyl, Esq.	5	5
T. Hyde Hills, Esq....	5	5
Dr. Cogswell	5	5
Professor Bäumler.....	3	3
Dr. Glover	2	2
Dr. Rice	2	2
Dr. Duckworth	2	2
Jonathan Hutchinson	2	2
Sir J. Rose Cormack...	2	2
Dr. Farquharson	2	2
Dr. Greenfield	2	2
Dr. Wm. Farr	1	1
J. T. Clover, Esq.....	1	1

Subscriptions will be received by either of the hon. secretaries, Dr. Duckworth or Dr. Greenfield, or by the hon. treasurer, Dr. Potter, 20, George-street, Hanover-square.

Correspondence.

"Audi alteram partem."

CASE OF BULLET-WOUND OF THE ANTERIOR LOBES OF THE BRAIN.

To the Editor of THE LANCET.

SIR,—As a small contribution to the cases which have appeared on the above subject in THE LANCET, May 3rd and May 31st, 1879, I send the following short account of a similar occurrence in my own practice:—

The patient, a gentleman aged fifty-four, of superior education and intellectual endowments, occupied apartments in a London hotel. He was accustomed to spend many hours daily alone. On the 12th of April, 1878, about 4 P.M., a waiter, who was his chief attendant, knocked as usual at his door, and, receiving no answer, tried to open it. He found that the door was locked on the inside, and he at once called other servants to his aid. One of the chambermaids remembered that about an hour before she had heard a report of firearms, which seemed to come from an adjoining street. This statement led to renewed knocking at the door, and, after several appeals from the waiter, my patient unlocked it. It was then found that he had been lying upon the bed. In answer to inquiries he said—pointing to a large revolver, which bore evidence of the recent discharge of one of the chambers—that he had shot himself. He staggered, was lifted on to the bed, and spoke no more. He lingered, breathing stertorously, without convulsions, subsultus tendinum, or vomiting, and with increasing coma, until ten o'clock P.M., when he quietly died. I saw the patient at five o'clock P.M. The bullet (one of Eley's No. 450) was larger than the one figured at page 623 of your journal for May 3rd, 1879. It had entered at the centre of the right temple, and passed out at a corresponding point on the left side of the head. From the latter opening brain-substance, and a *very small quantity of blood* issued with each act of respiration. No blood could be seen elsewhere.

In Mr. Thomas Smith's interesting case the most remarkable fact is the recovery of his patient. But here, let it be observed, "*the quantity of blood lost was very considerable.*" In my patient's case *a very small quantity of blood escaped;* the symptoms increased in severity, for instead of a gradual return to consciousness after the patient had once been aroused, deep coma set in, like that of ingravescent apoplexy. The inference is that in the former case the free escape of blood saved the patient's life; in the latter its extravasation was the main cause of death.

From Mr. Sawyer's report in THE LANCET of the 31st ult. we learn that death took place from encephalitis, through injury to the brain by a retained splinter of bone.

In each of these three instances the important fact known to physiologists, &c., receives confirmation—viz., that the anterior lobes of the brain are chiefly devoted to the operations of the intellect, whilst severe injury confined to the anterior lobes do not appear to directly or deeply affect the strictly animal functions of the body.

Connected with the above subject, I am tempted to give the following anecdote, related to me by an eminent legal friend who was well acquainted with the deceased gentleman I attended. My friend informed me that years ago he read of a French *savant* who was tired of his life, but thought that he would not depart from it without adding another item to his fame. He bequeathed a fearful legacy to those who might likewise desire to shorten their days. Monsieur, with characteristic *sang froid*, read up his subject, and finding that gunshot injury to the anterior lobes of the brain had in some cases failed to destroy life, whereas like injury to the cerebellum or medulla oblongata was a certain mode of effecting the purpose, wrote a paper on the subject, and, to ensure success, minutely detailed rules for the position of the body, and carefully demonstrated how the pistol should be pointed upwards and backwards within the mouth in order to bring about the fatal result. His immediate death thus caused by his own hand proved the accuracy of his baneful researches.

I remain, Sir, yours faithfully,

Pimlico, S.W., June 8th, 1879. H. M. DUNCAN, M.D. Lond.

THE MURCHISON MEMORIALS.

To the Editor of THE LANCET.

SIR,—In your notice of the meeting held at Willis's Rooms on the 5th inst., to organise a memorial to the late Dr. Murchison, there is an inadvertent statement which I should feel grateful if you will allow me to correct. The words of the notice run, "Dr. Greenfield (presumably on behalf of a fund that is being organised at St. Thomas's Hospital for a similar purpose,)" &c. I am anxious that the very natural error involved in this presumption should be corrected. I stated that I had no connexion with that fund, and had no authority to speak with reference to it. What I said was the outcome of my strong personal feeling, that it would be an advantage that the profession in London should share with Edinburgh in the honour done to one who was essentially a London physician, and that whatever was done should be done in such a way as to perpetuate his memory both in London and Edinburgh.

But whilst the universities' scheme is designed to establish a scholarship in clinical medicine as a public memorial of one whose public work, if I may so term it, was of equal value with, and wider range than, his hospital work, the St. Thomas's Hospital memorial has for its object the perpetuation of his name in connexion with the hospital in which he laboured and taught, and in which his memory as a clinical teacher and a true and wise friend to the students will long be revered. Not unfittingly, the initiation of the latter scheme has been left to the past and present students, who desired thus to give evidence of their regard for their lamented teacher. It has been decided that a bust, as a more personal reminiscence, is the most suitable form for the memorial to take, if sufficient funds can be obtained. Already, by the co-operation of the staff with the old and present students and other friends, a considerable sum has been subscribed or promised for this purpose.

That nothing but harmony reigns between these two memorials is shown by the fact that several of the staff of St. Thomas's, including the president of the committee of the hospital memorial, are also members of the committee of the universities' scheme; and it is a striking testimony to the many-sidedness of Dr. Murchison's character and worth, and the high estimation in which he was held by all who knew him, that two such memorials should have been initiated and have every prospect of success.

I am, Sir, yours faithfully,

Palace-road, S.E., June 11th. W. S. GREENFIELD.

TREATMENT OF GENU VALGUM.

To the Editor of THE LANCET.

SIR,—Surely Mr. Brodhurst must have forgotten the exact circumstances that occurred at the Clinical Society. Possibly he has confused the case he brought before the Society with some other treated by osteotomy. I was present at the meeting, and must corroborate the report published in THE LANCET for June 7th. The girl certainly walked into the room with the help of two crutches, with the instrument on, and it was at my request that the instrument on her leg was removed when she was treated. I then found that the limb could not be bent beyond a right angle. When the girl stood up without the apparatus both her hands were supported, and she used her crutches when leaving the room.

I am, Sir, your obedient servant,

Gower-street, June 11th, 1879. A. PEARCE GOULD.

THE LARYNGOSCOPE.

To the Editor of THE LANCET.

SIR,—Those who use the laryngoscope frequently will find that a suggestion that has been lately made by a writer in the *Union Médicale*, as to the employment of glycerine, very practical and convenient in making examinations. He recommends a cloth to be moistened with glycerine, and to be lightly passed over the mirror before use. The water contained in the expired air is completely dissolved in the glycerine, and many examinations can thus be made without any heating or warming. I have tried some experiments along with my colleague, Dr. Torrance, and we found that the mirror when so treated could be used for ten or fifteen minutes without being dimmed by the breath or obscuring the picture.

I am, Sir, your obedient servant,

RICHARD ELLIS,
Hon. Surgeon, Newcastle Throat and Ear Hospital.

June 6th, 1879.

THE ROYAL COLLEGE OF SURGEONS.

AN ordinary meeting of the Council was held on Thursday, June 12th, the President in the chair. The report of the Committee appointed to consider the mode of conducting the Primary Examinations was presented. After a lengthy and earnest discussion it was carried by fourteen votes (including the President's) to seven that Anatomy and Physiology, as subjects for examination, should be separated, and that the next nomination of examiners should be made on this principle.

Messrs. Parker, Flower, Lowne, and Hutchinson were nominated for re-election as Professors and Lecturers at the College.

A petition from one hundred Fellows in favour of granting the power of voting by proxy at the elections for the Council was presented, but it was stated that it was contrary to the charter to accede to it.

The report of the Erasmus Wilson Trust Committee was presented, and ordered to be entered on the minutes. The thanks of the Council having been voted to Sir James Paget for the presentation to the College of twenty-six autograph letters of Hunter to Jenner, the Council adjourned till Thursday, the 19th inst., when the President's report will be presented, and the consideration of the remainder of the report of the Committee on the Primary Examinations will be resumed.

PARLIAMENTARY PROCEEDINGS.

HOUSE OF COMMONS.

Wednesday, June 11th.

CONTAGIOUS DISEASES.

On the motion of Colonel STANLEY, a select committee was appointed to inquire into the Contagious Diseases Acts (1866-9), their administration, operation, and effect; and the following members were appointed to serve on the committee:—Mr. Cavendish Bentinck, Mr. Stansfeld, Colonel Alexander, Sir Harcourt Johnstone, Viscount Crichton, Mr. Shaw Lefevre, General Shute, Mr. Burt, Mr. Bulwer, Mr. O'Shaughnessy, together with five members to be nominated by the committee of selection.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members, having passed the required examination for the Fellowship on May 29th, 30th, and 31st, were, at a meeting of the Council held on Thursday last, duly admitted Fellows of the College:—

Andrews, William Stratford, Castle-street, Dover; diploma of Membership dated May, 1878.
Cathcart, Charles Walker, M.A., M.B., C.M. Edin., Carlton-terrace, Edinburgh. (Not a Member.)
Cheyne, William Watson, M.B. Edin., Old Cavendish-street. (Not a Member.)
Clarke, William Brace, M.B. Oxon., North Wootton, Lynn, Norfolk; May, 1877.
Footner, John Bulkley, Romsey, Hants; January, 1875.
Juler, Henry Edward, L.S.A., St. Mary's Hospital; May, 1867.
Lang, William, Exeter; January, 1874.
Morgan, John, L.R.C.P. Lond., Hereford-road, Bayswater; Nov. 1860.
Wherry, George Edward, B.A., M.B. Cantab., Trumpington-street, Cambridge; July, 1873.

Three candidates failed to reach the required standard, and were referred for twelve months' further professional study.

APOTHECARIES' HALL.—The following gentleman passed his examination in the Science and Practice of Medicine, and received a certificate to practise, on June 5th:—

Hoets, Alton Kingsley, Adelaide-road, N.W.

The following gentlemen on the same day passed the Primary Professional Examination:—

John Wm. Cross Cook and John Woollaid Payne, London Hospital.

VACCINATION GRANTS.—Dr. John Cheesman, of Buckingham, Mr. J. H. Freer, of Rugeley, and Dr. J. S. Walker, of Hanley, have received Government gratuities for efficient vaccination in their respective districts.

MR. R. RICHARDSON, L.R.C.P., L.F.P.S.G., F.G.S., has been presented with a handsome silver salver and tea and coffee service upon the twenty-fifth anniversary of his residence in Rhayader, in recognition of his public and professional services.

A MEETING was held last week at Limerick for the purpose of taking such steps as might be necessary with regard to the vacant post of coroner for the county. It was stated that by having a fourth coroner no additional expense would be incurred, as coroners were paid for each inquest held and a fixed mileage; and a resolution was adopted that the appointment rendered vacant by the death of Dr. Murphy should be filled up without further delay.

GENERAL POST-OFFICE, DUBLIN.—We understand that the post of medical officer to this institution will become vacant in July, in consequence of the retirement of Dr. Toler, who has performed the duties for a considerable period. Numerous candidates may be expected for the appointment, the emoluments of which are about £200 a year.

THE LATE SIR JOHN GRAY.—It is expected that the statue erected in memory of this gentleman in Sackville-street, Dublin, will be unveiled on the 24th inst. Sir John Gray was a member of the profession, but devoted himself to literary pursuits and parliamentary work, having been the proprietor of the *Freeman's Journal* and M.P. for Kilkenny. He took also a very active part in obtaining the Vartry water for the citizens of Dublin.

Obituary.

WILLIAM TILBURY FOX, M.D.

AGAIN we are compelled to discharge the painful duty of recording the sudden decease of a professional brother. The grave has scarcely closed over Murchison when Tilbury Fox, one of his personal friends, who was deeply affected by the untimely death of that distinguished physician, has been summoned to that bourne whence no traveller returns. The deep feeling of regret with which we chronicle this new grief is the more acute because Dr. Tilbury Fox was for many years, and up to the moment of his decease, a prominent member of the staff of THE LANCET.

He was born in 1836, the son of L. O. Fox, M.D., F.R.C.S., of Broughton, Hampshire, a well-known member of the profession in the south of England. At school he gave evidence of marked ability, and that energy which to the end characterised his enterprise in all he undertook. He carried off several prizes, and as a boy was remarkable for a daring and adventurous spirit, which involved him in many hair-breadth escapes. He entered the Medical School of University College in 1853, and made a brilliant career, displaying special proficiency in pathology. He passed the First M.B. examination of the University of London in the first division, with honours in Anatomy and Physiology, and the Second M.B. with honours in Surgery and the gold medal and Scholarship in Medicine, obtaining the M.D. in 1858. He was house-surgeon to R. Quain and house-physician to Jenner at University College Hospital. From the last-named teacher he acquired his early knowledge of skin disease. His first appointment was that of resident surgeon to the Lying-in Hospital at Lambeth. In 1859 he commenced general practice with Mr. Tapson, of Bayswater, but soon determined to practise as a physician. He selected the specialty of midwifery, and wrote papers on phlegmasia dolens and puerperal fever, and was appointed physician-accoucheur to the Farringdon General Dispensary. Though he made a fair beginning in this branch of work, Dr. Tilbury Fox soon elected to take up his favourite study of skin diseases, and wrote his works "Parasitic Skin Diseases" (1863) and on skin diseases generally (1864). In 1864 he left England on a tour through the East with the late Earl of Hopetoun. This excursion lasted much longer than he expected, and he suffered severely from illness, probably rheumatic fever and dysentery. He returned much enfeebled, and it may have been that his heart was at this time affected, though if so he was not aware of the fact. Soon after his return he wrote pamphlets on the spread of cholera in the East, and the dermatology of Egypt (1867), and settled down to practise skin diseases in Sackville-street. The post of physician-accoucheur at Farringdon-street was then exchanged for that of physician, and though he failed to obtain the post of physician at Charing-cross Hospital in 1866 in a contest with Dr. Pollock, he soon after joined that institution as lecturer on skin diseases, at the invitation of the governors, who made a special department for him. He was afterwards physician to the Skin Department at University College Hospital, which office he held to the time of his death.

Dr. Tilbury Fox was the author of numerous papers on skin diseases in the Transactions of the Societies and in the journals. He delivered the Lettsomian Lectures in 1869–70, on Eczema, and re-edited, with additions, Willan's Atlas of Skin Diseases, at the request of Messrs. Churchill, in 1875. The same year he undertook, with Dr. Farquhar, an attempt to throw new light upon the skin diseases of India, &c. With this object he prepared a scheme, which was adopted by the India Office, for obtaining a better knowledge of the "Endemic Skin Diseases of the East," and, from the answers received, Dr. Tilbury Fox and Dr. Farquhar drew up a report.

The deceased gentleman will be remembered by many as an excellent and successful teacher. A very complete system of baths was established at University College, the funds for which were collected by himself. His intense energy, and the wear and tear of his life, his love of his work, and his great anxiety to place dermatology on a sound scientific basis in England, are so well known that it would be superfluous to dwell upon them. As a physician, he was most popular with his patients, both in private practice and at the hospital. His success was decisive and extraordinary. As a member of Convocation of the University of London, he distinguished himself as the energetic opponent of the proposal to admit women to degrees.

Dr. Tilbury Fox himself believed that his malady was produced by too violent exertion when witnessing the autumn manœuvres at Cannock Chase, about six years ago. He had been increasingly troubled with symptoms of cardiac disease of late, and knew his life was drawing to a close, and with marked composure arranged his affairs so as to be prepared for the final event. The death of his friend, Dr. Murchison, greatly shocked him. Wearied with work, he left with his wife for a week's relaxation in Paris. He intended to return on Saturday, the 7th instant, and retired to rest on Friday night in his usual health. About two o'clock he was attacked with angina, and after an interval of ease, during which he was perfectly conscious, and spoke with resignation of his end, he died at an early hour on Saturday morning. That which engaged his latest attention in Paris was the subject of dermatology. He was preparing the heads of his contemplated address as President-elect of the branch to be opened at the coming meeting of the British Medical Association at Cork.

It has been easy enough to chronicle the professional honours which were the reward of the diligent use Tilbury Fox made of his great intellectual powers; it has been equally easy to name the works which he found time to give to the profession in the period of his brief life; but there remains that to be said about every man which it is often not easy to reduce to words. In the profession the death of Tilbury Fox leaves a gap which it will be difficult to fill. To the public generally his name was almost as familiar as it was to the members of his own profession in every part of the civilised world. Few men, indeed, have, at his age, been so successful in gaining the confidence of all

classes of the community. In America, in India, in Australia, and on the Continent of Europe, he has been long regarded as one of the highest authorities on dermatology in this country, whether as an investigator or as a writer. As a professional brother, a colleague, and a teacher he was highly respected, while as a friend he was beloved as few men are privileged to be. Honourable, upright, and conscientious in the discharge of all his duties, Dr. Tilbury Fox lived an exemplary life. With his kindness of heart, the geniality of his disposition, and pure, but unobtrusive, piety, he was never so happy as when seeking out fitting objects for help, succour, and support. He did much good by stealth, and probably not even his intimate friends knew how many poor persons at the hospital, in his private consulting-room, and in the neighbourhood where he lived, partook of his bounty and benefited by his benevolence.

Dr. Tilbury Fox left a written request that it should be reported of him in any obituary notice which might appear in THE LANCET: "I die a Christian in the now, I fear, much despised sense of that term, a 'simple believer in Jesus Christ as a personal living and loving Saviour,' without any right-eousness of my own, but perfect and secure in His; and that 'I know in whom I have believed, and am persuaded that He is able to keep that which I have committed to Him until that day.'"

Many of the memoranda written in the intervals of his daily work during the latter part of his life were evidently penned with the full knowledge of his condition, and show that he was waiting for his end, and was prepared for it.

Our esteemed and lamented friend and colleague will live in our recollection, and his memory will be cherished by a large circle who recognised his ability and appreciated his work. The funeral is fixed for Saturday (this day), at 12 o'clock, at Willesden Cemetery, a spot he himself indicated, in a recent drive with his wife and children, as a place of peaceful rest.

Medical Appointments.

ALEXANDER, P., L.R.C.P.Ed., L.R.C.S.Ed., has been reappointed Medical Officer of Health for the No. 2 Sub-district of the Tynemouth Rural Sanitary District, at £70 for one year.

BATEMAN, F., M.B., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 2 District of the Bradfield Union, Berkshire, vice Blyth, resigned.

BLAND, W. C., M.R.C.S.E., L.S.A.L., has been appointed Medical Superintendent of the new Lunatic Asylum for the Borough of Portsmouth.

BOYD, P. C., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Assistant Medical Officer to the Greenwich Union Workhouse and Infirmary, vice Jackman, resigned.

BRUCE, R., jun., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the No. 7 District of the St. Luke's Division of the Holborn Union, vice R. Bruce, L.R.C.S.Ed., resigned.

BURNEY, W. C. S., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Greenwich Union Workhouse and Infirmary, vice Thornton, resigned.

CALVERT, F., M.R.C.S.E. & L.M., L.S.A.L., has been appointed Certifying Factory Surgeon for the District of Brandsburton, Beverley.

CARLETON, J. S., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the No. 2 District of the Westbury-on-Severn Union, vice Collins, resigned.

COGHLAN, P. F., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, &c., for the Ullid Dispensary District of the Waterford Union, at £120 per annum and fees, and £20 per annum as Medical Officer of Health. Also Medical Attendant to the Royal Irish Constabulary, Kilmacow and Mooncom, vice Whitty, resigned.

COLBOURNE, H., has been appointed Medical Officer to the Hastings Free Dispensary, vice Joseph, resigned.

COLBOURNE, J. G., has been appointed Medical Officer to the Hastings Free Dispensary, vice Cooke, resigned.

DARBISHIRE, S. D., M.B., has been appointed a Physician to the Radcliffe Infirmary, Oxford, vice Acland, resigned.

FARR, S. B., L.R.C.P.Ed., M.R.C.S.E., has been appointed Certifying Factory Surgeon for the District of Andover.

HEAGERTY, D., L.R.C.P.Ed., L.R.C.S.Ed., & L.M., has been appointed Medical Officer for the Tweedmouth District of the Berwick-upon-Tweed Union, vice Davidson, resigned.

HENDERSON, W. R., M.D., M.Ch., has been appointed Assistant Medical Officer to the St. George-in-the-East Infirmary, Princes-street, London, vice Clippingdale.

JACKSON, R., M.D., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the No. 2 District of the Bellingham Union, Northumberland, vice Heagerty, resigned.

JOHNSON, T. R., M.R.C.S.E., L.S.A.L., has been appointed Certifying Factory Surgeon for the District of Roos, Hull.

MASON, S. B., L.R.C.P.L., L.F.P.S.G., L.S.A.L. (of Pontypool), has been appointed Surgeon to the Blaen-y-cwm Collieries.

MAY, J., L.R.C.P.Ed., L.F.P.S.G., L.A.H.D., has been appointed Certifying Factory Surgeon for Rathfriland, co. Down.

O'REILLY, F. J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Certifying Factory Surgeon for the District of Trim, co. Meath.

PLUMMER, J., M.R.C.S.E., has been appointed Certifying Factory Surgeon for the District of Hedon, Hull.

PROCTER, W., M.D., M.R.C.S.E., has been appointed Public Analyst for the City of York, at £2 12s. 6d. for each quarterly report; 15s. per analysis and certificate for the first 100; 10s. 6d. per analysis and certificate beyond.

PURNELL, T., M.D., has been reappointed Medical Officer of Health for the Glastonbury Urban Sanitary District, Somersetshire, at £30 per annum.

RECKITT, E. B., L.R.C.P.Ed. & L.M., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the Boston Union District and Workhouse, vice Maxwell, resigned.

RENNIE, S. J., M.R.C.S.E., L.R.C.P.Ed., & L.M., has been appointed House-Surgeon to the Ashton-under-Lyne District Infirmary, vice Law, resigned.

SHORTER, H. G., has been appointed Medical Officer to the Hastings Free Dispensary, vice Brodribb, resigned.

SOLOMON, C., L.R.C.P.Ed. & L.M., L.R.C.S.Ed., has been appointed Certifying Factory Surgeon for the District of Skirlaugh, Hull.

SPURGIN, T., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for Nos. 1 and 2 Districts of the Ongar Union, Essex.

SYMONDS, C. J., M.D., B.S., &c., has been appointed Surgical Registrar to Guy's Hospital, vice Wright, resigned.

TIDY, C. M., M.B., M.R.C.S.E., has been appointed Public Analyst for the Borough of Hertford, at 21s. per analysis for the first 100, and 5s. per analysis beyond.

TURLE, J., M.D., M.R.C.S.E., has been appointed Medical Officer of Health for the Finchley Urban Sanitary District, at £60 for one year.

WARD, H. D., M.D., M.R.C.S.E., has been reappointed Medical Officer of Health for the No. 1 Sub-district of the Tynemouth Rural Sanitary District, at £70 for one year.

Births, Marriages, and Deaths.

BIRTHS.

CROFTS.—On the 1st inst., at Waterloo-road, Dublin, the widow of Freeman Wills Crofts, M.B., of a son.

GARRETT.—On the 5th inst., at Walsall, the wife of Charles Frederick Garrett, M.R.C.S.E., of a son.

JONES.—On the 8th inst., the wife of O. T. Jones, M.R.C.S., of a daughter.

MCLEAN.—On the 9th inst., at Stewarton, Ayrshire, the wife of Malcolm McLean, M.D., of a daughter.

MAYNE.—On the 27th ult., at the County Infirmary, Longford, the wife of Nathaniel Mayne, L.R.C.S.I., of a son.

PHILLIPS.—On the 4th inst., at New Ferry-park, Cheshire, the wife of Edward J. M. Phillips, M.R.C.S., L.D.S., of a son.

MARRIAGES.

GIFFARD—BAKER.—On the 10th inst., at St. Mary's Church, Finchley, by the Rev. Samuel Bardsley, Rector, Harry Edward Giffard, of Denham House, Egham, Surrey, to Emily Marie Baker, of The Hawthorns, Finchley.

LEESON—LEWIS.—On the 10th inst., at the Kensington Presbyterian Church, by the Rev. Dugald MacColl, John Rudd Leeson, M.B., to Margaret Anne, youngest daughter of the late Rev. J. P. Lewis, of Diss, Norfolk. No cards.

POWELL—FARRON.—On the 5th inst., at Mundham, Norfolk, by the Rev. W. Burnet, M.A., Arthur Ernest Powell, Esq., M.R.C.S.E., L.R.C.P., of Bury's Hall, Holme Hall, Norfolk, to Mary Elizabeth, daughter of J. Farron, Esq., of Mundham, in the said county.

WARE—SANKEY.—On the 10th inst., at Whittington Church, Gloucestershire, by the Rev. J. Middleton Ware, LL.B., Rector of Ullingswick, Herefordshire, and the Rev. H. Ryder Ware (father and uncle of the bridegroom), Douglas Powell Ware, B.A., Assistant-Curate of St. Mary's Episcopal Church, Glasgow, to Mary Octavia, only daughter of Dr. Sankey, M.D. Lond., of Sandywell-park, Gloucestershire.

DEATHS.

BARKER.—On the 5th inst., at Bay View Avenue, Dublin, James Barker, F.R.C.S.I.

BEAUMONT.—On the 4th inst., at Knaresborough, Thomas Mills Beaumont, F.R.C.S.E., aged 67.

BENNIE.—On the 2nd inst., at Bloomfield, Currie, James Bennie, M.D., aged 27.

COATS.—On the 8th inst., at 25, Newton-place, Glasgow, John Coats, M.D.

HEGINBOTHOM.—On the 2nd inst., at Bruton, Somersetshire, Edmund Heginbothom, M.D., aged 44.

KILROY.—On the 2nd ult., at Naini Tall, Alexander Robert Kilroy, M.R.C.S.E., Surgeon-Major, Royal Artillery, aged 45.

LEITH.—On the 3rd inst., at Comrie, Perthshire, George Leith, M.D.

MCDERMOTT.—On the 19th ult., at Ackley, State of Iowa, United States of America, Dr. Hillary M. McDermott, formerly of Killarney.

MCILROY.—On the 5th inst., at Royal-terrace, Kingstown, John McIlroy, M.D., Surgeon R.N.

PAXTON.—On the 6th inst., at Oakleigh, Sutton, John Paxton, M.D., late of Kilmarnock, aged 67.

STUART.—On the 3rd inst., at Reading, John Stuart, L.R.C.S.I., Surgeon-Major, late of the Royal Engineers, aged 50.

WILKS.—On the 3rd inst., at Ashford, George Frederick Wilks, M.R.C.S.E., aged 68.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

PRAYER MEETINGS AND SCARLET FEVER.

AT a discussion held by the Lampeter Rural Sanitary Authorities, the Rev. James Jones very wisely protested against the Welsh custom of holding special prayer meetings in small houses, now that scarlet fever was very prevalent throughout the district. The houses were very limited in size, and totally unsuited for these promiscuous meetings. Unfortunately, though we thoroughly concur with these objections, we much regret to add that the churches are often scarcely any better than private houses so far as the efficiency of ventilation and the danger of infection are concerned, while the risk of catching cold in these sacred edifices is even greater.

Tensor.—An examination for the licence of a College of Physicians will certainly require regular training and a course of general study. No one book will suffice.

Mr. F. H. Alderson.—The paper has not come to hand.

SEQUEL OF A CASE OF AORTIC ANEURISM.

To the Editor of THE LANCET.

SIR,—In THE LANCET for Feb. 23rd, 1878, appeared a report by Mr. Anderson of two cases of aortic aneurism under my care, treated by absolute rest, iodide of potassium, and low diet in the Nottingham General Hospital, and promise was made in the case of J. B—— for a further note at the expiration of a year or earlier should an unfavourable result occur. I now, though late, write in redemption of the promise.

During the seventeen months which have elapsed since the patient's discharge from hospital he has been under continued observation, and with the exception of about a fortnight in February last, when I felt uneasy as to the maintenance of the consolidation changes in the sac, his condition has remained unaltered. It was this circumstance, in part, which has occasioned my hesitation and delay in the report.

It has not been considered prudent or safe to allow the man to follow his ordinary occupation (a fitter), inasmuch as it is highly probable this played an important part in the local development of the disease. Moreover, with the view to maintain the plastic properties of the blood, iron, in varied form, has been given pretty continuously; whilst to control inordinate and too rapid action of the heart, to which the man seems liable—I suggest as the result of irritation of the descending branches of the sympathetic cervical ganglion or the cardiac plexus rather than of direct and primary inhibition of the pneumogastric,[1]—digitalis has been administered, and with marked benefit. A spare but generous diet, with limited supply of fluids, has been observed throughout; and the man is conscious that this plan is right, that it materially conduces to his comfort, and diminishes his risks of heart excitement. The physical condition of the aneurism remains as described in the report at the time of the man's leaving hospital. I think, however, the sign of venous obstruction, as shown by the distended superficial jugulars, is more marked. There is also occasional pain, increased by walking or muscular effort, in the right axilla, and passing round to the scapula; but I can make nothing more out of this, and simply record the fact. I remarked in the previous record of this case that I thought "in the mode of treatment here adopted it must be admitted we possess a *method* which prolongs life, and *tends* in the direction of absolute cure." I now think the case must be scored as a success, and it is the first of its kind that I have seen in a professional experience of twenty-five years.

In its clinical aspects and bearings it is full of interest, instruction, and encouragement; in its pathology there still remain elements of doubt and difficulty; whilst its morbid anatomy remains hidden and unknown; but upon this latter point, if it ever so happens, I shall, Sir, with your permission, not fail to make a further communication in these columns.

Yours truly,
J. O. BROOKHOUSE, M.D., M.R.C.P. Lond.,
Physician to the General Hospital,
May, 1879. Nottingham.

Norwegian.—1. If both parties are healthy, and there are no strong proclivities to disease in the families, marriage may safely be contracted between cousins. — 2. There is no work on the subject.— 3. No conclusions could be drawn from an examination of the blood.

R. N.—Yes, in THE LANCET of May 3rd.

POTT'S FRACTURE.

To the Editor of THE LANCET.

SIR,—I shall feel greatly obliged if any of your readers who have had much experience in the treatment of Pott's fracture, with dislocation of the foot and fracture of inner malleolus, will inform me if that injury is followed by much or any deformity or impairment of motion.

Yours obediently,
June 9th, 1879. A YOUNG SURGEON.

[1] According to Schiff, the vagus contains, in addition to the *inhibitory*, also *accelerator* fibres.—(Hermann's Elements of Human Physiology.)

REASONS FOR DECLINING TO GIVE A CERTIFICATE OF DEATH.

THE *Sheffield Daily Telegraph* has a long report of an inquest on the body of Charles William Holland, who died of long-standing phthisis, under the care of Mr. Mason. The latter, hearing that the wife of the deceased had attributed bad effects to the medicine, refused a certificate. The wife and the father of the deceased said the doctor refused the certificate because they declined to give up a life policy to him to secure the payment of a former account. This was entirely denied by Mr. Mason, who said he demanded the inquest to verify the cause of death—a much more probable account, considering the aspersion cast on his treatment.

W. L. M.—Avoid advertisers. The Medical Directory will supply the means of deciding to whom to apply for advice.

THE CASE OF THOMAS MILLERCHIP.

To the Editor of THE LANCET.

SIR,—I have to thank you for inserting my letter in your last week's issue. That I was not wrong as to the professional estimate of the merits of this case will be shown by some of several letters I have received.

15, Harley-street, W., June 9th, 1879.

DEAR DR. ROGERS,—Cordially sympathising in your judgment as to the cruelty of the sentence on poor Millerchip, I enclose a small contribution to the fund being raised to give him a fresh start.

Yours truly,
ROBERT BARNES.

Church House, Clifton, June 7th, 1879.

MY DEAR SIR,—I agree with every word of your note to THE LANCET about Mr. Millerchip, and am very glad that a man of your note should have written so warmly on the subject. I beg to enclose cheque for £3 3*s.* towards helping him on his release.

Believe me yours very truly,
EDWARD LONG FOX.

Witheridge, N. Devon, June 7th, 1879.

DEAR SIR,—I enclose cheque for £2 2*s.* for Mr. Millerchip's use in answer to your appeal. Cock-fighting, badger-baiting, &c., have been put down; but doctor-baiting seems a very favourite amusement with many.

Faithfully yours,
Dr. J. Rogers. S. BURROWS.

Dr. Tuxford, senior, and Dr. Arthur Tuxford each send a guinea to assist Mr. Millerchip on his release, after the unjust imprisonment he has undergone.

2, The Square, Boston.

May I ask you also to acknowledge for me the receipt of the additional sums which have come to hand up to this date.

Dr. Vacher, Birkenhead	£2	2	0
Dr. Birt, Stourbridge	1	1	0
J. F. Palmer, Esq., King's-road, Chelsea ..	0	5	0
Dr. Beddoe, Clifton	0		
Dr. R. Barnes			

Other sums have been promised, which I will report when received.

I am, Sir, yours obediently,
23, Dean-street, Soho, June 11th, 1879. JOSEPH ROGERS.

RESIDENT MEDICAL OFFICER TO CHARTERHOUSE.

H. L., in reply to "Inquirer" in our last number, states the emolument of the above appointment to be £200 a year with a house, and that liberty to practise is allowed.

One Afflicted.—It is a sound rule for the guidance of the lay public that medical men who advertise themselves are not to be trusted, and "remedies" much extolled are generally unsafe.

SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—Having had considerable experience on the North Atlantic, which I believe is on all hands admitted to be the roughest of oceans, I have read with great interest the letters that have appeared in THE LANCET in reference to the use of nitrite of amyl in sea-sickness, which I propose trying on my next trip to sea.

In the meantime I would tell you that the result of my experience has been to place very great reliance on the following treatment, which I have rarely found to fail:—The exhibition of five grains of bromide of potassium, in pure water, only three times a day, accompanied by a prohibition of all solid food say for two or three days, limiting the patient in the meantime to a drink of half parts of milk and lime-water. I was induced to try the bromide of potassium from an article I saw in THE LANCET about eighteen months ago, in which sea-sickness was ascribed to a "series of minute concussions of the brain," which theory has always appeared to me to account fully for every symptom I have noticed present in the malady. The milk, of course, has just sufficient nourishment to keep up the strength of the patient, and, combined with the lime-water, has a tendency to neutralise any acidity of the stomach.

I am, Sir, yours truly,
H. SAUNDERS, L.R.C.P. Edin., &c.,
June, 1879. Late Medical Officer, SS. *Italy*.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

Fair Play writes to us, congratulating the Council of this institution on the results of the last meeting; but suggests that all canvassing-cards &c. be prohibited under some sort of indirect penalty. We have over and over again pointed out that penal codes and charitable institutions will not, because they cannot, work together. The last was a great step in the way of practical reform, and the governors are, as to the disposal of their votes, not now fettered in the smallest degree.

CONDITIONS OF MEDICAL STUDENTS' REGISTRATION.

THE Medical Registrar kindly corrects us in saying that medical students pay fees for registration. No fee, the Registrar tells us, is paid. We are glad to be corrected; but the correction makes no difference to our contention that medical students are deeply interested in impending legislation.

Ilex.—There are works published giving the composition of the several natural baths on the Continent, and containing the materials for judging as to the fitness of a special regimen for a particular complaint. It is the mode of life and the air rather than the water that work the "cure."

MEDICAL MEN AND THE CLERGY.

To the Editor of THE LANCET.

SIR,—I was surprised to see "M.B." state that in his "extensive experience" he has never known a "medical man of any standing" accept a fee from a clergyman. I should feel inclined to leave his remarks unchallenged were they not as absurd as they are dogmatical. But they might influence many a young beginner in practice, who has generally as much difficulty to make "ends meet" as any clergyman, and, I suppose even "M.B." will allow, the same social position to maintain. I would ask "M.B.," when he extends his charity so profusely, in what spirit is it received? If clergymen receive our services as a mere charity, do they in their general behaviour to our profession acknowledge themselves the recipients of these gifts? If as a right, on what grounds? Is not a young country practitioner or assistant just as miserably underpaid (particularly by the poor-law appointments) as the young curate? Then put the country rector on a par with the established medical man, and what is the result? Now, Sir, I practise in an agricultural district. I believe when I put the average of the surrounding livings at £500, it is below the mark. They (the clergy) nearly all keep their carriages, many their hunters, yet I am not to receive any remuneration from them. But the poor farmers—who at the present time are acknowledged not to be making anything, but really losing money,—them I am to charge, and also their poor labourers, because, according to the argument of "M.B.," one has a social position to keep up, the other none. In other words, as I read it, one is to live to the uttermost of his income in order to maintain a certain social display, so we are to attend him gratis; the others, having no position, and now no income, we are to charge. Is this charity or common sense? I do not deny there are many really poor clergy; but so are there too many poor medical men.

Lastly, I would ask "M.B." if in his "extensive experience" he knows whether it is the rule, or ever the case, for a clergyman to refuse the burial fee &c. of a medical man, no matter in what circumstances the widow may be left? I believe by too much gratuitous attendance and low charges the medical profession often cause themselves to be less thought of than if they acted otherwise.

Yours faithfully,

May, 1879. A COUNTRY PRACTITIONER.

To the Editor of THE LANCET.

SIR,—Your correspondent, "Pytchley," says truly that it would be absurd to attend the clergy gratuitously as "M.B." would have it. Why should the richest body in the world be so favoured? Did the medical profession possess the endowments of the Church, with the additional never-ceasing means of drawing money from the public, and were the clergy dependent on hard work for every shilling they got, something might be said in favour of "M.B.'s" idea. This, I need scarcely say, is the very reverse of the fact. But someone whispers, "There are poor curates." True; and is it creditable that our wealthy Church should leave some of its lower officials so unprovided for as to have it argued in your journal whether they ought not to be the recipients of charity from poor, hard-working medical men? And if wealthy ecclesiastics do not see the Christian duty of helping their poorer brethren, let us add one more to the numerous Curates' Aid Societies, and get the public to furnish funds to pay these gentlemen's medical bills.

I am, Sir, yours &c.,

June 3rd, 1879. H. W.

COMPLIMENTARY PARAGRAPHS.

THE *Tamworth Herald*, in a paragraph headed "Clever Surgical Operation," says: "Dr. ***** removed a large cancerous breast from a lady near Wilnecote. On Wednesday the same rising surgeon successfully extracted a cataract from the eye of an old gentleman at Huits. Both patients are doing well." Dr. ***** should call on the editor to divulge the author of a paragraph so contrary to all good taste, and then treat him as he would an enemy that had libelled him.

Justitia.—Our correspondent has a strong moral claim to payment. The only weakness of his legal case is in not having preserved a record of services and the lapse of time; but these considerations should not weigh in a moral estimate of the case.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the questions on Anatomy and Physiology submitted to the sixty-five candidates at the half-yearly primary examination for the Fellowship of the College on the 23rd ult., when they were required to answer all four questions:—

1. What is the loss of material, in kind and amount, which a healthy adult sustains in twenty-four hours? For what necessary physiological purposes is this expenditure undergone? How is the total amount shared by the different excretory organs, and by what means is the loss made good?
2. Describe the minute anatomy and development of the cochlea.
3. Describe the parts seen in a dissection, from skin to peritoneum, of the structures closing the outlet of the male pelvis.
4. Enumerate the nerves supplying the skin and mucous membrane of all parts above the level of the clavicles. State the source from which each is derived, and indicate its area of distribution.

At the half-yearly examination for the Fellowship of the College, which has just been brought to a close, nine candidates out of the twelve examined passed the ordeal. At the written examination on the 29th ult. the following were the questions on Pathology, Therapeutics, and Surgery submitted to them, when they were required to answer all four:—

1. Give the clinical history and pathology of the diseases of the larynx which give rise to difficulty of breathing. What surgical means are indicated in the various conditions?
2. What are the post-mortem appearances you may expect to find in a case of traumatic pyæmia? Explain their origin, and the symptoms attending their development.
3. Describe the condition generally known as concussion of the spine. Give your views as to the pathology of these cases; trace their usual progress, and state the main circumstances to which attention should be given in their diagnosis and prognosis.
4. State the probable consequences of a penetrating wound of the lung, inflicted, (1) by a bullet, (2) by a sharp instrument. How would you treat such a case in its different stages?

Mr. Shirley Deakin, (Allahabad.)—Our correspondent is labouring under a strange misapprehension. The gentleman to whose memory he wishes to erect a mural tablet certainly did not fall "on the disastrous and ever-to-be-remembered field of Isandula." He is known to have been alive and well two months after that event, and is believed to be at present doing good service with the troops in Zululand.

J. A.—Our correspondent will see that the questions are not of a medical nature, and that he must be a far better judge of them than we can be.

PARADOXICAL TEMPERATURES.

To the Editor of THE LANCET.

SIR,—Dr. Donkin having brought the above subject again on the *tapis*, perhaps you may deem the following few notes worthy of a space in your journal.

Amelia D——, fifteen years of age, had been ill for a week prior to her coming under observation on October 21st, 1878, when she presented well-marked enteric symptoms. Her temperature on that day was—morning 102·4°, evening 104·6°, and for the succeeding eighteen days varied between a morning maximum of 102·4° and a minimum of 98·6°, and an evening maximum of 105·2° and a minimum of 102·6°. On the twentieth day, Nov. 9th, double basic pneumonia was diagnosed. On this date the temperature was—morning 101°, evening 103°, and for the following seven days the temperature varied between a morning maximum of 101° and a minimum of 99°, and an evening maximum of 104° and a minimum of 100°. On Nov. 17th the temperature was—morning 97°, evening 101°; and on the following morning, Nov. 18th, the mercury ran right up to the top of the thermometer, which unfortunately was indexed up to 110° only, but was graduated up to 113°. The evening temperature for same date was—at 3 P.M. 101°, 6 P.M. 100°, 11 P.M. 102°. Next day, Nov. 19th—morning 100·2°; evening, 4 P.M. 100·6°, 11 P.M., 104°. Nov. 20th—morning 104°; evening 102°. Nov. 21st—morning 103·2°; evening, 4 P.M. 101°, 11 P.M. 110°. Nov. 22nd—morning 101°; evening 102°. Nov. 23rd—morning 100°; evening 100°. On Nov. 24th the temperature again rose, being—morning 100°, evening 106°; but after this date it never went higher than 101°, nor lower than 99°.

I have no doubt that some of your readers will be inclined to attribute most, if not all, these high temperatures to friction or other means resorted to by the girl herself or her friends. The former idea is at once negatived by the fact that she was completely unconscious, showing signs of life by a groan only when moved, for several days prior to, and three days after, the dates of high temperature; the latter idea by my presence. Her mother was instructed by me how to take her temperature, which she did, and on two occasions noted 110°, and once that the index ran up to the top of the thermometer; but these I have not included in my notes, as I had no personal knowledge of them. The only complications in the case were double pneumonia and bed-sores.

The patient made a rapid and complete recovery, without other sequelæ than loss of hair, a most insatiable appetite, and a very bad temper.

All the observations were made with two thermometers.

I am, Sir, yours obediently,

JULIUS CÆSAR, L.R.C.P. Ed., &c.

Victoria Dock District Provident Dispensary, May, 1879.

AN IRISH OPINION ON THE MEDICAL BILLS.

THE *Irish Daily News* has an article breathing satisfaction with the Irish and English examining bodies; but just hinting that perhaps the Scotch bodies may need a little greater severity than is provided in the Medical Act of 1858! This is very fine. When will these miserable local comparisons be made impossible by a reduction in the number and securities for the equality of the minimum examinations.

THE PROPOSED JUNCTION OF THE HASTINGS FREE AND PROVIDENT DISPENSARIES.

To the Editor of THE LANCET.

SIR,—I was not surprised to see that this proposal was rejected by so large a majority of the governors of the Hastings Free Dispensary. A few months ago, at a Committee meeting of the Free Public Dispensary, Clare-market, a governor brought forward a resolution to the effect that the provident principle should be introduced there; that the poor should, for a small weekly payment, be entitled to advice and medicines without a governor's letter of recommendation; that the old system of governors' letters, with gratuitous advice and medicines, should be continued, and that the provident system should be superadded. This resolution had not a single supporter, but was strongly opposed by the two physicians and all the governors present, and for the following reasons:—

1. That it was contrary to the intentions of the original founders and benefactors of the institution.

2. That the coexistence of two classes of patients—the one receiving free advice and medicines on the old governor's letter principle, the other *claiming them as a right* in virtue of weekly payments—would lead to confusion, jealousy, and contention.

3. That the plan of dividing amongst the medical officers the surplus remaining, after all expenses are paid, is essentially bad, tending, as it does, to niggardliness in prescribing.

Free dispensaries, like the "Surrey," the "Public," and others, supported by voluntary contributions, with ample funds from subscriptions, bequests, &c., and which pay their medical officers a small, fixed, annual gratuity, supply the poor with the very best advice and drugs that can be got, and offer no temptation to the prescriber to make quassia do duty for quinine, opium for morphia, and compound rhubarb pill for compound decoction of aloes—a temptation which it is not easy for the club doctor or provident dispensary doctor to resist.

I am, Sir, yours truly,

DANIEL HOOPER, M.B. Lond.,
Senior Physician to the Surrey and the Public Dispensaries.

Trinity-square, S.E., June 2nd, 1879.

"MENTHOL."

IN our reference last week (p. 822) to this new antiseptic, the name of Mr. Archibald Duncan was mentioned as that of a gentleman who had been making experiments with the preparation. This was an error which we hasten to correct in justice to Mr. Archibald D. Macdonald, by whom the properties of the antiseptic were directly brought under our notice.

OBSTINATE CONSTIPATION.

To the Editor of THE LANCET.

SIR,—If "Sufferer" (page 833) has not yet tried the effect of a grain of glacial extract of aloes with a quarter of a grain of belladonna at night, taking during the day two or three ounces of oil in his diet, either in the form of salad oil or butter, I think he would find relief from his trouble. Mr. Hancock's plan of using liq. potassæ (*Medical Times and Gazette*, vol. ii. 1878, p. 597), or Dr. Powell's use of glycerine (*Practitioner*, vol. i. 1878, p. 241), are worthy of consideration.—Yours &c.,

RICHD. NEALE, M.D. Lond.

Boundary-road, St. John's-wood, June 9th, 1879.

To the Editor of THE LANCET.

SIR,—I beg to recommend to "Sufferer" the trial of a drug which I lately have been giving with great success for obstinate constipation. It is tinct. colocynthidis. It is not officinal, being taken from the German Pharmacopœia. I have found ten to twelve drops in a wineglass of water relieve most obstinate cases. There has not been any griping tendency with its use, but gentle and free moving. In some of the most obstinate cases the dose requires to be repeated twice a day occasionally.

I am, Sir, yours truly,

June, 1879. W. C.

TRAINED NURSES IN SCOTLAND.

To the Editor of THE LANCET.

SIR,—In a short article on the subject of the Association for Providing Trained Nurses for the West of Scotland, established at 220, Sauchiehall-street, Glasgow, you say: "In explaining thus briefly the objects and practice of this institution, we cannot, of course, speak with any authority as to the skill of the nurses," &c. I think it right, therefore, to say that I have times without number availed myself of the services of these nurses, and have found them to be excellently trained in every respect, and I have no doubt that this is the general verdict of the profession in Glasgow and the west of Scotland. Both doctors and patients owe a deep debt of gratitude to the lady superintendent, Mrs. Higginbotham, who has so generously and so assiduously devoted herself to this labour of love.

Yours faithfully,

T. MCCALL ANDERSON,
Professor of Clinical Medicine, University of Glasgow.

June 9th, 1879.

MEDICAL ADVERTISING IN GATESHEAD.

"FOR the benefit of the working classes" a Medical Club has been established in Gateshead, and its establishment is announced to the poor working classes in a handbill, which is said to have been circulated freely through the various beer-houses and small shops of the district. Consultation and medicine are offered on terms which in our judgment are undignified. To do the author of the handbill and of the scheme justice, we must add that he has not put his name on the bill.

INVERSIO UTERI.

To the Editor of THE LANCET.

SIR,—In response to Mr. Skinner's appeal to the profession for the record of cases of the above, I send the following, which occurred in my practice last year.

On August 8th I attended a healthy woman in her third confinement. The labour was an easy one, lasting about eight hours. The placenta was expelled by the natural efforts very soon after the birth of the child, and the uterus contracted firmly; but, contrary to my invariable habit, I neglected to support this contraction by pressure of the hand for a little time after the expulsion of the placenta, but retired from the bedside. Very shortly afterwards the woman complained that she felt a good deal passing. On placing my hand on her abdomen, I failed to find the uterus; but on making a vaginal examination I found a tumour blocking the vulva, which proved to be the inverted uterus. Strongly grasping the mass in the hollow of my hand, and using a little firm upward pressure, I succeeded in restoring it to its natural position, which I maintained for a time by combined internal and external pressure. Afterwards I gave a large dose of ergot, and tightly bound her up. Happily the accident did not recur, and all went on well.

I may state that in this case there was no meddlesome interference with the after-birth, nature expelling it without any assistance, as it will in most cases if given time.—I am, Sir, yours truly,

Cardiff, June 4th, 1879. FRED. EVANS, M.D.

To the Editor of THE LANCET.

SIR,—The case of Mr. R. Skinner is no doubt of importance. I had a case some six years since, where a midwife attended a woman, and after pulling away for an hour she succeeded in detaching the placenta; but she left her patient for two whole days with the uterus inverted; and, I need hardly say, I immediately summoned a friend of mine, and with his assistance returned the uterus. Peritonitis being present, she was placed under the usual treatment. This patient recovered after several months, although there was not much treatment required. She was kept face downwards, as she felt easy in that position, for seven or eight days. There have been no children born since.

A case happened ten days since, where the funis became detached, and I saw the patient five hours afterwards. There was extensive morbid adhesion, and it was just such a case where one might expect such an injury had the funis not become detached.

Many of these midwives tug with all their might at the funis within a minute after delivery, not knowing the injury that might ensue.

I remain, Sir, your obedient servant,

Plaistow, June 1st, 1879. JOHN VANCE.

J. H. informs us that, in lieu of sealing-wax, a very deleterious substance (the nature of which he does not mention) is now used to coat the mouth-piece of clay-pipes, and so warns all smokers against it. He says that the late Mr. Wakley, when coroner for Middlesex, frequently warned the public against the use of clay-pipes unprotected with sealing-wax or some other substance. Our readers must accept this statement for what it is worth, as we are not aware that Mr. Wakley interested himself specially on the subject.

IODIDE-OF-POTASSIUM RASH OF AN UNUSUAL CHARACTER.

To the Editor of THE LANCET.

SIR,—As the various rashes produced by the iodide of potassium have been lately the subject of remark at some of our Medical Societies, I have thought the following case, being of a very severe character, might prove interesting and instructive to your readers.

The patient, a female, aged fifty, was suffering from chronic pneumonia. On the 14th of April I prescribed four grains of the iodide with bark every four hours. She experienced no ill-effects until the 17th, when she had some slight symptoms of coryza and soreness at the corners of the mouth. On the 18th a rash, consisting of large red papules, having a shotty feel under the finger, appeared on the wrists and forearms. On the 19th the iodide was stopped; nevertheless, the rash continued to spread over the whole body, being accompanied by a uniform erythema. There was a considerable amount of burning heat; the temperature was raised to 101° and 102° F., and there was considerable œdema of the parts most invaded by the rash. The face was puffed up to such an extent as to completely distort the features, at the same time the mucous membrane of the mouth and tongue was covered with little aphthous ulcerations, so that the patient had great difficulty in swallowing. After lasting about a fortnight, the rash began to fade, and a peeling process began. The skin over the whole of the body came off in large flakes, on the hands and feet more especially, forming almost a cast of the parts. I need hardly say that the lung was in a far worse condition after such an attack.

I am, Sir, your obedient servant,

Wood-green, June 2nd, 1879. B. A. RUGG.

ETHER-DRINKING IN IRELAND.

DR. MOFFATT, of Hawarden, having recently stated that the consumption of ether had greatly increased in Ireland since the passing of the Sunday Closing Act, a correspondence in reference to the matter has taken place between him and the Secretary of the Irish Association for the Prevention of Intemperance. It appears that in a district on the borders of Tyrone and Derry the habit of ether-drinking has existed for a long period; but it is purely local, does not occur in any other part of the country, and there is no evidence that the consumption is on the increase.

TRICYCLES.

To the Editor of THE LANCET.

SIR,—I have been a rider of the "Iron Horse" for four years, and, having recently tried a tricycle, offer "Viator" the results of my experience.

The machine I ride is the "Desideratum," which has two large wheels in front and a small steering wheel behind, with an ordinary bicycle saddle between the front wheels. On an ordinary turnpike road it may be ridden by a practised rider at the rate of eight or nine miles an hour for five-and-twenty or thirty miles, with very little fatigue; but a wet or stoney road makes a great difference in the exertion required to propel it, much more so than with a bicycle. A head wind also impedes the progress considerably. For the first week or ten days the muscles of the thigh feel stiff if the rider have not been used to the exercise, and the skin perspires freely; but daily exercise on the machine soon obviates these discomforts, and the exertion required for an hour's run is very much less than that of walking for the same period. I have not tried the "Salvo"; but on account of the endless chain and cog-wheel, by means of which the motion is conveyed to the axle of that machine, I should think it would be more difficult to work than the "Desideratum," in which the power acts directly on the axle by means of levers. Moderate hills are surmounted with comparative ease; but where the roads are rough, the bicycle is an easier and pleasanter means of progression; but one who does not care for this latter machine would find the tricycle a pleasant change from the gig, and, when used to it, less fatiguing than horseback.

Yours truly,
Waltham, Melton Mowbray, May, 1879. W. L. EMMERSON.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Curnow, London; Dr. De Havilland Hall, London; Dr. Bristowe, London; Dr. O. Will, Aberdeen; Mr. M'Dermott, London; Mr. Masterman, Ixworth; Mr. Carleton, Newnham; Dr. Weir, Leicester; Mr. Berry, Wigan; Mr. Oglesby, Leeds; Dr. R. Neale, London; Mr. Elder, Nottingham; Mr. Thompson, London; Messrs. Putnam and Son, New York; Dr. Collins, Newnham; Mr. Shorter, Hastings; Dr. Barnardo, London; Mr. Vereschagin, London; Dr. Evans, Cardiff; Mr. Stephens, Corsham; Mr. Spanton, Hanley; Mr. D. L. Mackenzie, Old Calabar; Mr. Callard; Mr. Alderson, Hammersmith; Mr. Barkas, Wanolda, New South Wales; Mr. Sugden, Bundaberg, Queensland; Mr. Falvey, Cork; Mr. Lewis, Birmingham; Dr. Macdonald, Edinburgh; Mr. Adams, Ashburton; Rev. Lord S. G. Osborne, Sidmouth; Dr. Pontopeddon, St. Thomas, West Indies; Dr. Walker, Hanley; Dr. Henderson; Dr. Bland; Mr. Matthews, Bradford; Dr. Tatham; Dr. Buck, Baldock; Dr. Bramwell, Edinburgh; Dr. Anderson, Cramlington; Dr. Cheesman, Buckingham; Mr. W. Field; Messrs. Davis; Dr. Hannan; Dr. Anderson, Glasgow; Mr. C. R. Straton, Salisbury; Dr. Reckitt, Wainfleet; Dr. Thomson, Glasgow; Mr. Hawes; Dr. Walters, Gundamuck; Mr. Kirby; Messrs. Gillon and Co.; Mr. Roots, Orpington; Mr. Burnie, Bradford; Mr. Wilson; Dr. Eberle; Mr. Hinings, Rhayader; Mr. Webb; Mr. Howells; Mr. Foster; W. E. M.; A Young Surgeon; Fair Play; H.; Oxon.; One Afflicted; Justitia; Anglicus; L.R.C.P. Ed. &c.; R. N.; The Registrar-General of Edinburgh; Ilex; L.S.A.; J. A.; A. M. G.; An Unsuccessful One; M.B.; W. C.; Tensor; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Downes, Shrewsbury; Messrs. Macniven and Co., Edinburgh; Mr. Morley, Kensington; Mr. Couch, Kingsclere; Mrs. Caisley, Lowtown; Mr. Saunders, Manchester; Messrs. Slinger and Son, York; Mr. Boys, Fordingbridge; Messrs. Hunter, Gordon, and Smith, Aberdeen; Mr. Phillips, Liverpool; Mr. Legge, Aberdeen; Messrs. Mullock and Sons, Newport; Mr. Stanfield, London; Messrs. Porteous and Co., Glasgow; Mr. Startin, London; Mr. Tomlinson, Maldon; Mr. White; Dr. Barr Meadows; Mr. Haxworth, Wetherley; Mr. Wenlock; Mr. Walker; Dr. Jones, Bangor; Mr. Evans, Towyn; Mr. M'Kenzie, St. Ives; Mr. Collins; Mr. Markham; Mr. Jenkinson; Mr. Dalzell; Mr. Keith; W. M. G.; A. B. C., London; F.R.C.S.; Medicus, Liverpool; Lady Superintendent; M., Commercial-road; X. Y. Z., Weston-super-Mare; Menthol, Leicester; W. F., Brockley; T. S., Pimlico; M.D.; W. S. C., Rotherham; M.R.C.S.; D., Bridlington; K., Bath; Felix; Surgeon; H., Southampton; M.D., St. Ives; L. D. S.; Tutor; Bertie; Delta, Chesterfield; Surgeon, Wigan; A. B., Newcastle; B.; Alpha, Manchester; M. A., Sheffield; M.R.C.S., Arundel; Medicus, Caistor; H. C., Bury St. Edmunds; M.D., Kingston-on-Thames.

Pictorial World, Nottingham Evening Post, Animal World, Lantern, Nottingham Daily Guardian, Anti-Vivisectionist, Night and Day, Times of India, Montrose, Arbroath, and Brechin Review, Leamington, Warwick, and County Chronicle, Age, Exeter and Plymouth Gazette, Derbyshire Advertiser, Brighton Guardian, &c. have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, June 12th, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 6	29·68	S.E.	55	57	102	70	52	0·26	Overcast
,, 7	29·75	S.E.	56	59	81	66	53	..	Overcast
,, 8	29·64	W.	56	59	106	68	53	0·59	Cloudy
,, 9	29·76	S.W.	55	57	101	65	54	0·02	Overcast
,, 10	30·04	S.W.	54	60	108	71	50	..	Fine
,, 11	29·90	S.W.	57	62	..	63	51	..	Overcast
,, 12	29·90	S.W.	55	60	98	65	51	0·22	Showery

Medical Diary for the ensuing Week.

Monday, June 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS. — Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

Tuesday, June 17.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, June 18.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL. — Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL. — Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN. — Operations, 2½ P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

Thursday, June 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL. — Operations, 2 P.M., and on Friday at the same hour.

Friday, June 20.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Professor Jonathan Hutchinson, "On the Influence of the Nervous System in the Production of Disease, chiefly with reference to the Skin, Eye, and Joints."

Saturday, June 21.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

TERMS OF SUBSCRIPTION TO THE LANCET.

POST FREE TO ANY PART OF THE UNITED KINGDOM.

One Year.....£1 12 6 | Six Months £0 16 3

TO THE COLONIES AND INDIA.

One Year £1 14 8

Post Office Orders in payment should be addressed to JOHN CROFT, THE LANCET Office, 423, Strand, London, and made payable to him at the Post Office, Charing-cross.

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under.... £0 4 6 | For half a page £2 12 0
For every additional line. 0 0 6 | For a page 5 0 0

The average number of words in a line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

N.B.—All letters relating to Subscriptions or Advertisements should be addressed to the Publisher.